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ABSTRACT

Presented is the final report of the National Center on Educational Media and Materials for the Handicapped, a facility designed to provide a setting where educators of the handicapped and technologists can create, develop, and validate new instructional tools and techniques as part of the instructional technology activities of the Bureau of Education for the Handicapped. In a section on the program accomplishments, the project background is reviewed, center program goals and objectives are reported, and the organization and administration of the center is outlined. A second section focuses on objectives and activities for the following areas: administration and central technical services; media, materials, and technology services; information services; and coordination services. Appended are a list of center publications, the names and addresses of national advisory board members, a final report on the Liason Office, and a listing of center staff. (SBH)

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Final Technical Report

Contract No. OEC-300-72-4478

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THE NATIONAL CENTER ON EDUCATIONAL MEDIA AND MATERIALS FOR THE HANDICAPPED

February, 1978

U.S. Department of Health, Education and Welfare
Office of Education
Bureau of Education for the Handicapped

EC104002

ABSTRACT

The National Center on Educational Media and Materials for the Handicapped was expected to "provide a setting where educators of the handicapped and instructional technologists will create, develop, and validate new instructional tools and techniques as an integral part of the instructional technology activities of the Bureau of Education for the Handicapped." As also indicated in the original request for proposals, Year I was designated as a planning year and included staffing and planning for instructional resource development, technology competency development, information dissemination, delivery system development, and serving the Model Secondary School for the Deaf and Kendall Demonstration Elementary School. Among its goals in instructional resource development was "to develop, operate, and maintain a coordinated National Needs Assessment of educational media and materials for the handicapped."

In the changing context of the Media Services Program of the Bureau of Education for the Handicapped, the former network of Special Education Instructional Materials Centers and Regional Media Centers was replaced in 1974 by a program of Area Learning Resource Centers, Specialized Offices, and the National Center. During the period from September, 1974, to August, 1977, there emerged a well-articulated and effectively integrated program of learning resource services for which NCEMMH provided coordination and through which it provided a variety of technical assistance services; media, materials, and educational technology services; and information services. Thus, in September, 1974, the Center was reorganized with a small administrative staff supporting three service components: Media, Materials, and Technology Services (MMT); Information Services (IS); and Coordination Services (CS).

The MMT service component provided marketing and distribution services for specialized instructional materials through noncommercial and commercial distribution channels; identified, located, reviewed, and processed numerous instructional media and materials; and provided extensive technical assistance to developers, producers, and distributors. Among many publications were special education market reports, the Developers' Guide, Guidelines for the Representation of Exceptional Persons in Educational Materials, and Standard Criteria for the Selection and Evaluation of Instructional Materials.

The IS component of the Center designed, implemented, and made operational the National Instructional Materials Information System, NIMIS, disseminating information on more than 36,000 instructional materials. IS responded to more than 110,000 requests for information products, publications, and brochures and disseminated more than 16,000 bibliographies to teachers, materials centers, and agencies. Each issue of Apropos, the National Center's newsletter, was mailed to a list

of more than 16,000 individuals, schools, publishers, and agencies. Information Services continued to develop and standardize the vocabulary used in accessing special education materials through the Instructional Materials Thesaurus for Special Education. A manual was developed to guide users of NIMIS. A Publisher Source Directory and National Catalog of Films in Special Education are included among the many IS publications.

CS provided coordination and technical assistance to the Area Learning Resource Centers and Specialized Offices and functioned as a liaison with the related program of Regional Resource Centers and its Coordinating Office. Coordination Services produced Proposal Writing Guidelines and Quarterly and Final Report Writing Guidelines and prepared quarterly summaries of accountability data for the ALRCs, Special Offices, and NCEMMH.

Through six standing committees, a steering committee, and task forces, CS coordinated the development of guidelines for uniform program administration and accountability reporting and provided forums for identifying exemplary practices and deliberating on materials development, materials distribution, information services, personnel training, and intrastate program development.

CS produced special reports and provided technical assistance to LRCP units as well as to other agencies. The ALRC/SO/NCEMMH Directory became the most frequently used NCEMMH publications.

The NCEMMH program was directed and managed by Administration and Central Technical Services staff working closely with other service component staff members. Two National Symposia were planned and carried out, and services in subcontracting, personnel, and consulting, planning, and evaluation were provided to facilitate the entire NCEMMH program.

For five years, the NCEMMH provided a variety of products, services, and technical assistance to facilitate the education of children with handicaps. The Center's success in these endeavors is the result of the capable, highly motivated, and hard-working staff and the opportunities provided by the Learning Resource Centers Program, Division of Media Services of the Bureau of Education for the Handicapped.

Final Technical Report

Contract No. OEC-300-72-4478

The National Center on Educational Media and Materials for the Handicapped

S. C. Ashcroft, Ed.D
Project Director

The Ohio State University
Columbus, Ohio

February, 1978

This project reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. Department of Health, Education and Welfare
Office of Education
Bureau of Education for the Handicapped

EC104002

FOREWORD

The National Center on Educational Media and Materials for the Handicapped (NCEMMH) was funded for five years by the Bureau of Education for the Handicapped, U.S. Office of Education. Under the leadership of the original director, John C. Belland, the Center was launched in June, 1972. During a short interim period, Jack Frymier served as director until Samuel Ashcroft was recruited. Dr. Ashcroft served as director for three years, until the end of the original governmental contract.

Effective December 1, 1977, the College of Education assumed support of the Center. Dr. Thomas M. Stephens, Professor and Chairman, Faculty for Exceptional Children, has been assigned the position of Executive Director of the Center. While its character will change, the mission of the Center will remain essentially the same - to provide services to special educators and others interested in the education of the handicapped.

Appreciation is hereby extended to BEH for its original support of the Center. Special acknowledgement is made to Drs. Belland, Frymier, and Ashcroft and to all of their staff members for having brought the Center to its current national status.

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INTRODUCTION

The National Center on Educational Media and Materials for the Handicapped (NCEMMH), located at The Ohio State University, was supported for five years by the Bureau of Education for the Handicapped (BEH) of the U.S. Office of Education (USOE). The original contract was awarded for three years, and two sole source contracts extended the life of the Center to five years. This final report describes the Center's activities from its inception in June, 1972 through November, 1977, when the contract ended. Emphasis is placed on Years III-V, during which the Center was reorganized, fully staffed, and became an integral part of the newly developed (1974) Learning Resource Centers Program (LRCP) of the Division of Media Services of BEH.

During the past five years, the NCEMMH has fulfilled the obligation expressed in federal legislation to facilitate the use of new technology for the education of persons with handicaps. In cooperation with other projects of the Bureau of Education for the Handicapped and with many other agencies serving the special needs of persons with handicaps, the NCEMMH has made available a variety of specialized educational materials for the education of the handicapped; has explored new avenues for marketing such materials; and has developed a computerized information system providing detailed information on more than 36,000 instructional materials specifically selected for the education of handicapped children and youth.

Through its program, the Center has used both commercial and non-commercial marketing channels to make available materials which were developed but heretofore undistributed; it has promulgated evaluative criteria for appraising instructional materials; and it has disseminated suggested guidelines for the appropriate portrayal of the handicapped in instructional media. Through its information center services, information became widely available on selected instructional materials. In cooperation with four correlated national agencies, thirteen regional programs, and more than twelve hundred local learning resource centers, previously unavailable instructional materials and learning resources became available to large numbers of handicapped children. Extensive technical assistance on a wide range of media-related topics was made available to developers, producers, distributors, media specialists, and special educators.

As a significant component of the Learning Resource Centers Program, NCEMMH complemented other agencies to provide a full range of services and technical assistance in media, materials, and educational technology for the handicapped. The National Center has also fulfilled a role complementary to other associated and diversified efforts at the local, state, and national levels.

The administration and staff of the National Center acknowledge with appreciation significant assistance from the Learning Resource

Centers Branch of the Division of Media Services and other components of the Bureau of Education for the Handicapped. The NCEMMH program has enjoyed effective working relationships with the Specialized Offices for the Blind at the American Printing House for the Blind; the Specialized Office for the Deaf at the University of Nebraska; the Specialized Office for other Handicapped at the University of Wisconsin; and the Special Office for Materials Distribution at Indiana University; and with the Area Learning Resource Centers and Regional Resource Centers and their Coordinating Office at the University of Kentucky.

The National Center has benefitted from helpful working relationships with many professional organizations working with handicapped persons, especially the Council for Exceptional Children and the Association for Special Education Technology.

Finally, we deeply appreciate the dedicated efforts of the NCEMMH staff members who have contributed so much diligent work to the successful completion of the contract and toward the education of children with handicaps. The Ohio State University, the College of Education, the Faculty for Exceptional Children, and The Ohio State University Research Foundation have contributed significantly to the successful implementation of the NCEMMH contract.

STATEMENT OF PROGRAM ACCOMPLISHMENTS

Since June of 1972, the National Center on Educational Media and Materials for the Handicapped has functioned as a project of the College of Education of The Ohio State University. Established through congressional legislation, it has been charged to assist regional, state, and local educational agencies to meet the special education needs of children with handicaps. The original legislation for the National Center was broad and discretionary, calling for a comprehensive program of activities to facilitate the use of new educational technology in educational programs for the handicapped.

PROJECT BACKGROUND

According to the original legislation and the first Request for Proposals, the National Center was expected to address its activities to the following specific areas:

NOTE: This Final Technical Report was prepared in accordance with the Final Technical Report Writing Guidelines, NCEMMH Publication No. NC-77.501. The Report is based extensively on "Report to Congress, 1977," NCEMMH Publication No. NC-77.704. Tables and figures in this Report appeared originally in the Report to Congress.

1. Developing a work plan that specified the activities of NCEMMH and of the Special Education Instructional Materials Centers, and that provided for the coordination of these activities, ensuring a comprehensive delivery of media services.

2. Developing educational media. This included (a) arranging for the marketing and distribution of field-produced instructional materials; (b) producing professional quality reproductions of tested prototype materials; and (c) designing and developing instructional materials for handicapped children, including research, consultation about, writing, mock-up development, field testing, revision, and validation of such products.

3. Training people in the use of media and educational technology for the education of the handicapped. This included (a) facilitating growth of the Bureau's instructional technology assistance program through symposia and institutes and (b) serving as a gathering point, depository, and clearinghouse for original materials and media useful to the field.

4. Disseminating information. This referred to the distribution, for information or demonstration purposes, of printed material, films, video products, computer tapes, and other telecommunications media and interest to professionals and paraprofessionals.

5. Developing a delivery system. This referred to devising and developing procedures for assuring availability of instructional materials to teachers and handicapped students, a depository function that was later transferred elsewhere.

The original Request for Proposals called for the National Center to serve the following organizations: the Special Education Instructional Materials Centers/Regional Materials Centers (SEIMC/RMC) Network; the Model Secondary School for the Deaf and Kendall Demonstration Elementary School at Gallaudet College; state departments of education; state media and materials centers; the Bureau of Education for the Handicapped; and public and private schools and other organizations, either voluntary or government-related, that deal with education of the handicapped of all ages and with all handicapping conditions.

The organizations were to be served through a series of processes, including: (1) developing inservice training workshops; (2) setting up agreements with publishers and manufacturers; (3) developing training packages for teacher educators, teachers, developers, and producers of

educational materials and media specialists for the handicapped; and (4) establishing a computer-based information system giving information about materials, sources of materials, training packages for materials, and resource persons to help in using the materials.

The Request for Proposals through which the original contract was awarded in 1972 further indicated that:

> NCEMMH will provide a setting where educators of the handicapped and instructional technologists will create, develop, and validate new instructional tools and techniques as an integral part of the instructional technology activities of the Bureau of Education for the Handicapped. The law provides for the eventual construction of an identifiable building to be known as the National Center on Media and Materials for the Handicapped. An annual operational budget will be funded with due regard to the scope and nature of the work to be accomplished by the NCEMMH.

CENTER PROGRAM GOALS AND OBJECTIVES

The specific work authorized for the National Center by the Bureau of Education for the Handicapped evolved from program year to program year, so that some aspects of the proposed mission just outlined gradually changed.

The Center's program goals and objectives for Year I, a planning year, were evolved through planning, start-up, staffing, and negotiations with the sponsor, the Bureau of Education for the Handicapped. The transitional status of the Learning Resource Centers Program was reflected in the developmental status of the NCEMMH program and is documented in the planning documents, proposals, proposal amendments, and quarterly reports of this period.

The National Needs Assessment serves as a specific example of the changes prevalent through Years I and II. In connection with activities in Instructional Resource Development, the NCEMMH proposed "to develop, operate, and maintain a coordinated national needs assessment." After several attempts during 1972-1974, it was not possible to attain consensus on the design and implementation of a national needs assessment, BEH funding was not approved, and the NCEMMH National Needs Assessment activity was deferred. Following a two-and-a-half month BEH inquiry into the rationale for and methods of conducting the NNA, it was decided to adopt the rationale that had been proposed by NCEMMH and to develop a Request for Proposals (July, 1975). Thus, in October, 1975, Educational Testing Services was awarded a contract to carry out the NNA with coordinating assistance from NCEMMH. Coordination Services of NCEMMH, with cooperation from the ALRCs and Specialized Offices, developed a technical paper to be used by ETS in guiding the study. Subsequently,

forms clearance and other delays have caused the implementation of this activity to be deferred until the 1977-1978 school year.

By September, 1974, the network of Special Education Instructional Materials Centers and Regional Media Centers was replaced by four Specialized Offices and thirteen Area Learning Resource Centers; certain functions previously assigned to the National Center had been allocated to the Specialized Offices; and a new workscope delineating new responsibilities of each component of the ALRC/SO/NCEMMH program had been developed. In this continuously changing context, the Center's program remained dynamic, responding to evolution in the overall program.

The Center's first contract year (June 1, 1972, to August 31, 1973) was agreed, by contract, to be devoted to planning. The second and third years, intended to be fully operational, found the National Center responding to the new nationwide reorganization, new workscope, and a new division of labor, along with the seventeen other contractors in the program. In June, 1974, a site visit team sent to the National Center by the Bureau of Education for the Handicapped included the following among its recommendations: "Special attention must be paid to the relationships with the new network -- particularly the (Specialized Offices). The ALRC/NCEMMH Workscope is unrealistic in the way it divides work between (NCEMMH and the Specialized Offices). A better understanding of how these relate needs to be worked out." As this quotation suggests, the new program and new relationships required changed perspectives on the roles of the various components of the program. The period from September, 1974, to August, 1977, brought about a marked change in this situation. A well-articulated and effectively integrated program of learning resource services emerged.

During Year III, the scope of work was gradually clarified, the National Center was reorganized internally according to new management-by-objective practice, and earlier plans were adapted to build on previous accomplishments. For example, NCEMMH began placing a limited number of instructional materials into noncommercial channels of distribution and began operating an interim information retrieval system until the National Instructional Materials Information System (NIMIS) could become fully operational. In the meantime, it began building a data base of materials abstracts and preparing to install pilot terminals for full implementation.

During Year IV (FY 1976-September 1, 1975, to August 31, 1976), most of the program activities of the Center were in full operation, and the Center was funded through a sole source contract. Additional emphasis was placed on providing technical assistance to potential recipients such as developers, producers, and distributors of instructional materials; to the Area Learning Resource Centers and Specialized Offices; and to other research and service agencies. In addition, the administrative link with the University was reviewed, modified, and strengthened, to let the Center make wider use of the many resources of the University.

During Year V (FY 1977-September 1, 1976, to August 31, 1977), the Center was again funded by sole source contract, and its basic responsibilities changed little. However, there was new emphasis on certain activities (with increased proportions of resources allocated to Media, Materials, and Technology services and to Information Services, and corresponding reductions in resources allocated to Administration and Central Technical Services (ACTS) and Coordination Services). The goals for Year V were:

1. Place more instructional materials into commercial channels of distribution, in addition to using the noncommercial channels largely used heretofore.

2. Provide more and better technical assistance to developers, producers, and distributors of media, materials, and educational technology for the handicapped.

3. Explore the possibility of increased activities in the marketing of instructional media, materials, and educational technology to complement the recently planned marketing component of the Bureau of Education for the Handicapped.

4. Expand the capabilities and capacity of NIMIS to enable the National Center to respond to more inquiries concerning not only child-use instructional media, materials, and educational technology but also professional media training information and materials.

5. Further diversify and expand the NIMIS data base, in combination with placement of a limited number of terminals throughout the United States.

6. Expand training activities in the effective use of NIMIS and NIMIS-generated products for Area Learning Resource Centers, Specialized Offices, and other personnel.

7. Plan training activities to foster the development of effective media, materials, and technology services at the local level as well as at the state and regional levels.

8. Provide technical assistance in connection with the various phases of the National Needs Assessment to be completed during the 1977 program year, and in connection with the unfolding developments associated with implementation of the Education for All Handicapped Children Act of 1975, Public Law 94-142.

Significant program success during the interval September 1, 1974, through August 31, 1977, was facilitated by the Center organization, providing products and services as interrelated service components responsive to the Center mission, yet autonomous to the extent necessary to maintain effective monitoring and control functions.

The NCEMMH organizational chart, Figure 1, Page 8, shows the administrative organization essentially as it was implemented in September, 1974, and as it functioned through August, 1977. A small Administration and Central Technical Services (ACTS) staff working closely with a small Coordination Services (CS) staff provided administrative support and internal coordination to Media, Materials, and Technology Services (MMT); Information Services (IS); and Coordination Services (CS) as they related to the LRC Program of the BEH. The division of responsibilities is reflected in the NCEMMH work breakdown structure for each service component, Figure 2, pages 9-13. The structure shown is for FY 1977, but closely approximates the structure for Years III and IV, 1975 and 1976.

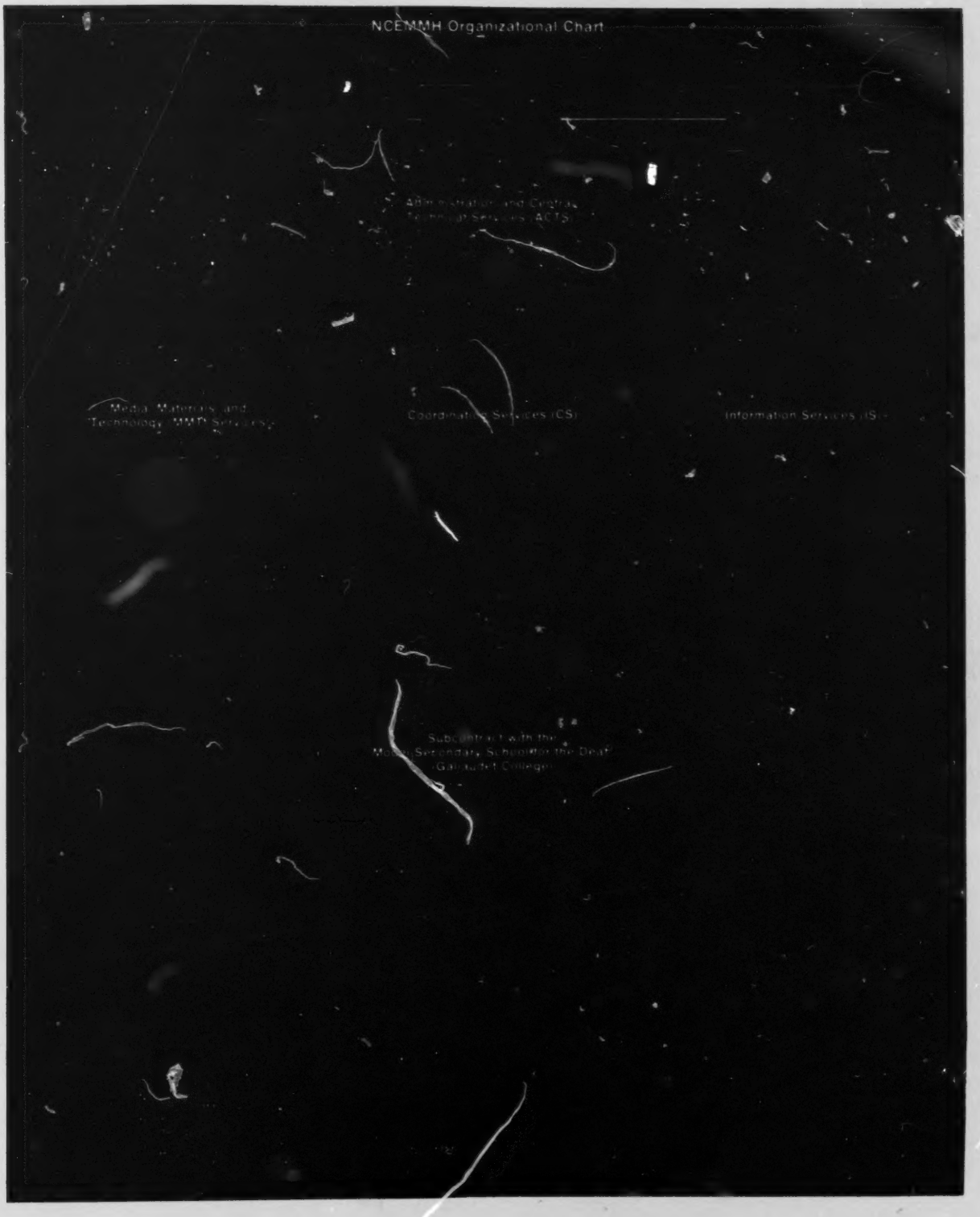

NCEMMH Organizational Chart
Media, Materials and
Technology (MMT) Services
Coordinative Services (CS)
Information Services (IS)
Subcontract with the
Model Secondary School for the Deaf
(Gallaudet College)

Figure 2

FY 1977
NCEMMH Work Breakdown Structure

Service Component ACTS

I. Workscope Element 1.6.A. Operate the National Center in an LRC program-supportive and cost effective manner.

Objective 1.6.A.1 Provide appropriate direction and staff development for National Center operations.

Strategy 1.6.A.1.1 Convene National Center advisory groups, Center personnel, and consultants according to predetermined schedules.

Strategy 1.6.A.1.2 Implement management strategies which address National Center needs and utilize Center and University resources effectively.

Strategy 1.6.A.1.3 Coordinate training activities for ALRC and other personnel including NIMIS training in conjunction with Information Services (IS).

Objective 1.6.A.2 Supervise, monitor, and provide administrative support for National Center management and operations functions.

Strategy 1.6.A.2.1 Guide service component planning, management, and internal evaluation; conduct staff, executive committee, and service component director meetings.

Strategy 1.6.A.2.2 Participate in and contribute to mission-related professional meetings.

Strategy 1.6.A.2.3 Supervise and coordinate day-to-day operations and monitor service component progress, intervening as required; maintain liaison with Coordinating Office for Regional Resource Centers and other agencies.

Objective 1.6.A.3 Produce documentation of National Center operations.

Strategy 1.6.A.3.1 Produce quarterly reports for use by the sponsor.

Strategy 1.6.A.3.2 Produce technical reports for use by LRC Program units.

Strategy 1.6.A.3.3 Produce Center documents (Report to Congress, RFPs, proposals and internal management documents, and special reports).

Objective 1.6.A.4 Coordinate and monitor LRB-supportive subcontract activity in conjunction with Media, Materials, and Technology Services (MMT).

Strategy 1.6.A.4.1 Provide for coordinated delivery of NCEMMH services to MSSD/KDES.

Strategy 1.6.A.4.2 Provide supportive activities by subcontract with GWU.

Service Component MMT

I. Workscope Element 2G Enter tested products into systems for the distribution of materials to intended targets.

Objective 2.2.G.1 Select 15-20 instructional materials for distribution.

Strategy 2.2.G.1.1 Intake and select materials for review.

Strategy 2.2.G.1.2 Review materials.

Strategy 2.2.G.1.3 Develop distribution plans.

Strategy 2.2.G.1.4 Enter residual materials into archival storage and retrieval (S4).

Objective 2.2.G.2 Prepare 15-20 selected instructional materials for entry and enter them into distribution.

Strategy 2.2.G.2.1 Edit products.

Strategy 2.2.G.2.2 Render products.

Strategy 2.2.G.2.3 Communicate to enter products into distribution.

Strategy 2.2.G.2.4 Capitalize reproduction of noncommercial distribution items (cost recovery).

Objective 2.2.G.3 Provide technical assistance/consultation on product distribution planning.

Strategy 2.2.G.3.1 Technical consultation and assistance (to developers) in developing distribution plans.

Strategy 2.2.G.3.2 Conduct specialized searches for competitive products.

Objective 2.2.G.4 Provide market information to developers and distributors.

Strategy 2.2.G.4.1 Assemble information base on market information.

Strategy 2.2.G.4.2 Disseminate market information to product developers and distributors.

Objective 2.2.G.5 Identify product training needs to ALRCs.

Strategy 2.2.G.5.1 Disseminate product training need information to ALRCs for National Center products in distribution.

II. Workscope Element 5A Acquire materials included in the materials-information base.

Objective 2.5.A.1 Facilitate acquisition of materials for the S4 NIMIS data-base matching collection.

Strategy 2.5.A.1.1 Conduct acquisition plan.

Service Component IS

I. Workscope Element 3.4.D Develop and maintain a machine-readable information data-base with inquiry terminals.

Objective 3.4.D.1 Provide for the development, maintenance, and data entry of NIMIS data-bases.

Strategy 3.4.D.1.1 Develop NIMIS system, including author, title, and subject search capability and file-building routines.

Strategy 3.4.D.1.2 Receive abstracts from preparation sources; edit and enter data into NIMIS.

Objective 3.4.D.2 Provide for the development of the various LRC components in the utilization of NIMIS.

Strategy 3.4.D.2.1 Develop procedures for information users and organizations on how to utilize NIMIS resources, including related instructional resources, educational technology, applications, terminals, and data-preparation procedures.

II. Workscope Element 3.4.E Produce catalogs, bibliographies, and specialized products from data-base.

Objective 3.4.E.1 Develop and provide information products from the NIMIS data-base.

Strategy 3.4.E.1.1 Develop and produce catalogs, bibliographies, indexes, magnetic tapes, and catalog cards of NIMIS data-base entries.

III. Workscope Element 3.4.F Operate a search/retrieval system to answer inquiries about materials.

Workscope Element 3.4.H Systematically match source of demand with source of supply upon inquiry.

Workscope Element 3.4.I Maintain records on inventories, circulation, demand, reactions to service and other data.

Objectives 3.4.F,H,I.1 Provide responses to information requests received, disseminate information from NIMIS and related information sources, and share information with other information agencies.

Strategy 3.4.F,H,I.1.1 Provide information responses to requests received from ALRC units, from the Model Secondary School for the Deaf, and from other organizations.

IV Workscope Element 3.4.G Maintain a source file for answering inquiries about location of materials for sale, rent or loan.

Objective 3.4.G.1 Provide for the creation, development, production, and dissemination of information products and services that are not derived from NIMIS.

Strategy 3.4.G.1.1 Develop and maintain information source files presently not included in the NIMIS data bases.

Strategy 3.4.G.1.2 Provide for the periodic dissemination of information on products and programs of the Learning Resource Center Program (ALRCs, RRCs, SO's, and NCEMMH).

Service Component CS

I. Workscope Element 4.1.H Network and clearinghouse functions for interstate resource sharing.

Objective 4.1.H.1 Convene Learning Resource Center personnel as required for information sharing and resolution of program-implementation issues.

Strategy 4.1.H.1.1 Conduct Standing and Steering Committee Process.

Strategy 4.1.H.1.2 Conduct, at most, three ALRC/SO Directors' Meetings.

Objective 4.1.H.2 Provide for ALRC/SO/NCEMMH/BEH needs for program-relevant technical information.

Strategy 4.1.H.2.1 Continue production of ALRC/SO summary accountability reports.

Strategy 4.1.H.2.2 Produce documentation of LRCP workscope activities, model practices, and related accomplishments.

Strategy 4.1.H.2.3 Provide internal coordination of NCEMMH/IMS.

Objective 4.1.H.3 Supply and coordinate NCEMMH-based technical assistance required by ALRC/SO Centers and Standing/Steering Committees.

Strategy 4.1.H.3.1 Provide technical assistance to ALRC/SO Centers and Standing/Steering Committees.

Objective 4.1.H.4 Support LRB needs for assistance in program definition and reconceptualization.

Strategy 4.1.H.4.1 Respond to LRB requests for National Needs Assessment (NNA) assistance.

Strategy 4.1.H.4.2 Facilitate program rethinking as requested (respond to LRB requests by producing position papers, monographs, etc.).

CENTER ORGANIZATION AND ADMINISTRATION

The leadership, staffing, and administrative organization of the National Center that were operative at the end of the contract were put in place at the beginning of the Center's third year of operation. The organization chart shows the organization, positions, and functions as they operated. This small staff, having well-defined roles and functions, and with a program clearly delineated in management-by-objective terms, provided for the day-to-day operations of the Center. The productivity of the National Center far exceeded usual expectations of a small staff. This productivity is a tribute to and a function of the National Center's ability to locate and to use a broad array of individuals who are uniquely qualified to serve the handicapped. This was accomplished by supplementing the permanent full-time staff with consultants whose compensation was arranged on a subcontract or a per diem basis. In addition to such consultants from all parts of the United States, the National Center also had access to the talents of professional staff from the host institution, The Ohio State University, particularly from its College of Education, and from the metropolitan environs of the Center, located in a state capital with immediate access to the state education agency and other special education agencies. National library automation and retrieval expertise has also been immediately available from Columbus-based agencies such as Battelle Memorial Institute, Chemical Abstracts Service, and the Ohio College Library Center.

Between June 1, 1972, and August 31, 1977, the federal government provided $4,882,865 in support of the National Center. For these dollars, the sponsor received (1) work specified under the enabling Request for Proposals (RFP), (2) work requested by the Learning Resources Branch of the Bureau of Education for the Handicapped in addition to that explicit under the RFP, and (3) support of work subcontracted to competent experts who provided direct service to the Bureau, (4) and as specified in the legislation, a Liaison Office at the Model Secondary School for the Deaf at Gallaudet College was maintained as a subcontract.

The nearly $1,000,000 (average) authorized annually supported activities proposed by The Ohio State University, formally approved by the Bureau, and documented in regular reports from the National Center. In addition, the Bureau periodically asked the National Center to complete other tasks, for which they have provided other funding. Table 1 shows the proportions of the annual budget allocated to each service area. (This budget table begins with FY 1975 because service areas did not exist prior to that time.) During the last three years, there was a decided shift to minimize coordination and administration functions to release additional funds for basic program efforts in Media, Materials and Technology and Information Services.

The remainder of this report is devoted to the development and accomplishments of Administration and Central Technical Services, and the three major service areas of the National Center, MMT, IS, and CS.

Table 1

Proportional Allocations of Annual Budget*

Service Area	FY 1975 Percent	FY 1975 Amount	FY 1976 Percent	FY 1976 Amount	FY 1977 Percent	FY 1977 Amount
Media, Materials, and Technology (MMT)	*24*	—	*20*	—	*31*	—
Information Services (IS)	*21*	—	*34*	—	*31*	—
Coordination Services (CS)	*35*	—	*28*	—	*22*	—
Administration and subcontracts	*20*	—	*18*	—	*16*	—
Total	*100*	$1,087,347	*100*	$1,166,954	*100*	$1,245,981

* Direct three-year comparability is not possible. FY 1975 allocations have been adjusted to match subsequent organizational structure. FY 1975 "total" used for comparison purposes only; exact FY 1975 budget amounts obtainable from The Ohio State University Research Foundation.

ADMINISTRATION AND CENTRAL TECHNICAL SERVICES (ACTS)

The Administration and Central Technical Services (ACTS) component of the National Center was designed to operate the National Center to be program-supportive and cost-effective as a major agency in the Learning Resource Centers program of the Bureau of Education for the Handicapped. Comparisons of the NCEMMH work breakdown structure in its proposals for 1975, 1976, and 1977 indicate changing trends in Administration and Central Technical Services (in 1975, called Direction, Administration, and Management). In FY 1976, ACTS operated under two workscope elements: (1) operate the National Center in an LRC program-supportive and cost-effective manner, and (2) provide technical assistance to the National Center's service components, LRC program units, and the sponsor. These two workscope elements were elaborated in six objectives: (1) to provide appropriate direction for National Center operations, (2) to implement effective management strategies, (3) to provide appropriate internal monitoring and control procedures, (4) to produce documentation of National Center operations, (5) to provide support for all National Center management functions at the service area level, and (6) to provide technical assistance at the ALRC/SO/BEH levels. These six objectives were implemented through nineteen strategies. The 1977 work breakdown structure shows the single workscope element and four objectives implemented through eleven strategies. During 1977 more of the coordination activities were allocated to the Coordination Services area (see Coordination Services section of the Final Report). The organization structure in effect during Years III-V (1975-77) is the framework for this portion of the Final Technical Report.

Workscope element (1), operate the National Center in an LRC program-supportive and cost-effective manner, was implemented through the following objectives:

Objective 1, provide appropriate direction and staff for National Center operations.

Under this objective were strategies including convening the National Center advisory groups, Center personnel, and consultants. Ordinarily the National Advisory Board was convened twice per year. However, on the advice of the Bureau of Education for the Handicapped Project Officer, no National Advisory Board meetings were held during 1977. Previous Board activities had included advising the National Center on such activities as the National Needs Assessment, the Symposia sponsored by the National Center marketing instructional materials, developing the National Instructional Materials Information System (NIMIS), and providing coordination services for the Area Learning Resource Centers program and Specialized Offices as well as the Regional Resource Centers (RRC) Program and its Coordinating Office (CORRC).

Under this objective, ACTS also implemented management strategies responsive to National Center program needs in a way that used both Center, University, and other resources effectively. Coordination of training activities was carried out for Area Learning Resource Centers and other personnel, particularly in conjunction with training for the implementation of NIMIS, in cooperation with NCEMMH Information Services (see the Information Services section of this report).

The National Center sponsored an ALRC/Specialized Office training session at the Kansas City training facility for TWA employees. In cooperation with Information Services, ACTS sponsored training for twenty persons from the thirteen ALRCs, seven persons from Specialized Offices, and four from the Model Secondary School for the Deaf and staff in the Bureau of Education for the Handicapped. These training workshops provided information on how to operate NIMIS terminals in the regions and offices.

Objective 2, Supervise, monitor, and provide administrative support for the National Center management and operation functions.

This objective was implemented through three strategies providing for the guidance of service component plannings, management, and internal evaluation and conducting staff, executive committee, and service component director's meetings. Such meetings were held on a regular schedule or by appointment as needs indicated.

Staff development was provided through opportunities to participate in and contribute to mission-related professional meetings. The major example of such meetings during the 1977 program year was participation in the National Convention of the Council for Exceptional Children. All service components of the National Center participated in displaying National Center products, demonstrating the National Instructional Materials Information System, and providing information about the coordination and technical assistance services of the Coordination Services and Administration and Central Technical Services components of the Center. (See the other service component reports for additional staff development activities supported by ACTS.)

The third strategy under this objective provided for supervision and coordination of the day-to-day operations of the Center and for monitoring service component progress. Liaison was maintained with the Coordinating Office for Regional Resource Centers, the Area Learning Resource Centers, the Specialized Offices and other agencies.

Objective 3, Document National Center operations.

The three strategies under this objective called for the production of quarterly reports, the production of technical reports, and the production of various Center documents such as the Report to Congress,

internal management documents, and special reports. Four quarterly reports, several technical reports, and the Report to Congress (distributed in June, 1977) were all produced.

Objective 4, Coordinate and monitor LRB-supportive subcontract activity in conjunction with the Media, Materials, and Technology Services component.

Two strategies supported this objective. Provide coordinated delivery of NCEMMH services to MSSD/KDES (see final report, Appendix 3) and provide supportive activities by subcontract with George Washington University. The last strategy provided support of media services and related activities for the Bureau of Education for the Handicapped.

As indicated in the 1977 Summer Quarterly Report, throughout 1977 Administration and Central Technical Services continued to fulfill its obligations for the administration and management of the Center through its eleven strategies. Although the National Center advisory group was not convened, it was involved through correspondence and telecommunications and with continuing transmission of publications and other communications to the membership. Management and evaluation activities were adapted to the current phase-out prevailing at the Center throughout 1977. The provision and coordination of Center operations was continued, although staff attrition due to contract termination and vacations caused the Center to have only the minimum essential skeletal staff available on some occasions.

Reporting and documentation were continued throughout the summer with few detrimental effects. There was some increased activity in communicating with and monitoring the MSSD and GWU subcontract due to the imminent termination of the National Center. Throughout its history, the Administration and Central Technical Services component of the National Center facilitated the work of the other service components; and during the two-month extension beyond the August 31 contract date, ACTS facilitated the appropriate and cost-effective culmination of the project.

The National Center sponsored two national symposia. The first was entitled Standards and Criteria for the Evaluation of Instructional Materials. The second was entitled Marketing Instructional Materials: Systems and Processes. Symposia were cooperatively planned by a committee composed of representatives of various components of the LRCP, by members of the National Advisory Board of NCEMMH, and by noted materials developers, publishers, distributors, and specialists in media and special education.

In cooperation with the Bureau of Education for the Handicapped and the Specialized Office for the Deaf, the National Center participated in the Annapolis Conference and in the development and distribution of the Annapolis Papers, later called Instructional Technology and the Education of All Handicapped Children. The seventeen papers were

published as a collection of papers by educators on some implications of P.L. 94-142, The Education of All Handicapped Children Act of 1975, with Robert Heinich as editor and S. C. Ashcroft as associate editor. These papers, published for limited distribution by the National Center, will later be published through Educational Technology Press.

The publication of five booklets by Diversified Educational Consultants, Incorporated, illustrates another extra contract activity of NCEMMH. At the request of the Division of Media Services, Learning Resource Centers Branch, NCEMMH allocated funds to publish "Helping the Pre-School Child Learn to Speak Distinctly," "Helping the Pre-School Child Who Has a Hearing Loss," "Helping the Pre-School Child Who Stutters," "Stimulating Speech and Language Development of the Pre-School Child," and "Suggestions for Dealing With the Problems of the Visually Handicapped Pre-School Child." Fifteen hundred copies of each were delivered to the U.S. Office of Education, Bureau of Education for the Handicapped, Division of Media Services.

The management-by-objectives approach to planning and implementation of the National Center's program, as carried out by Administration and Central Technical Services, has included strategies, activities, and evaluation plans for each objective. Continuous evaluation of performance and productivity in each service component was facilitated by periodic conferences of professional staff, by weekly reporting and summarizing of person-hour work effort by strategy, by monthly work effort summaries and financial reports. Thus expenditures were monitored by strategies, objectives, and service components.

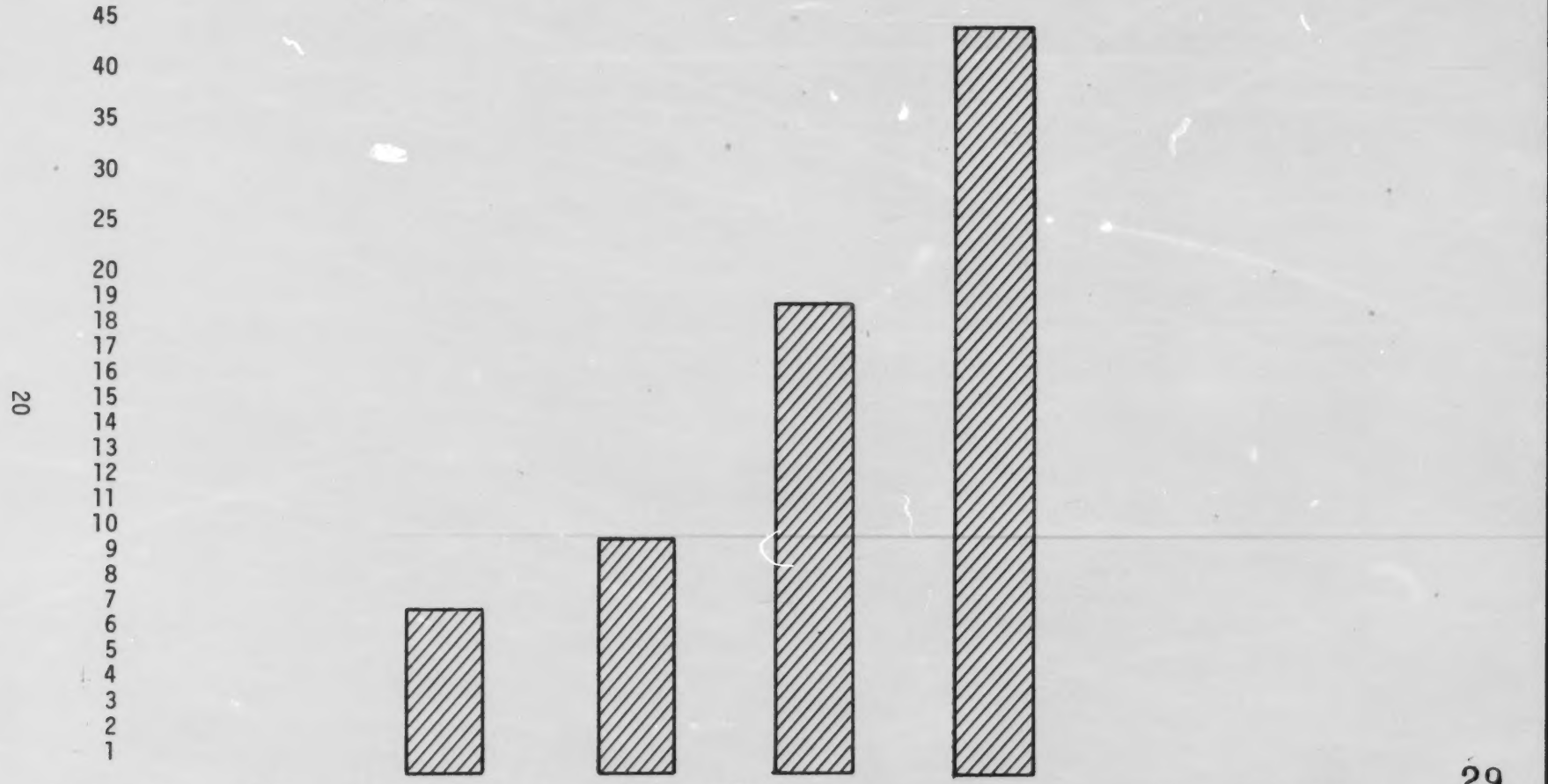
The National Center's quarterly and special reports, newsletters, catalogs, and other information sources indicate the Center's success in providing contracted products and services on time and well within budgeted estimates. An analysis of the Summer Quarterly Report indicates that of the forty-one strategies, thirty-five were judged to be on time, four ahead of schedule, and two behind projected schedule. In addition to the full implementation of its own program, ACTS and the Center's service components were effective through special projects and supplemental activities such as facilitating preparations for the National Needs Assessment (in cooperation with Educational Testing Service NNA contract); the Task Force on Full Services Frame of Reference (in cooperation with the RRC Program); and various subcontracts requested by the Bureau of Education for the Handicapped.

MEDIA, MATERIALS, AND TECHNOLOGY SERVICES (MMT)

The Media, Materials and Technology (MMT) Service component of NCEMMH developed an effective program of assistance, distribution, and marketing functions. The FY 1977 program is an example of how activities were carried out under the six major objectives and fourteen strategies, outlined below.

Figure 3

MMT Products Placed into Distribution



Objective 1, Select 15 to 20 instructional materials for distribution.

This objective accommodated the necessary procedures for choosing from among the hundreds of potential materials submitted to the National Center each year, to ensure that exemplary materials were distributed. Supporting strategies were:

1. Intake materials and select those that warrant thorough review.

2. Review materials.

3. Develop distribution plans.

4. Enter residual materials into archival storage at the Specialized Office for Materials Distribution, where they can be retrieved if needed by educators.

Objective 1 for 1977 proposed 15 to 20 products be placed into distribution. A total of 22 products were placed into distribution. Their titles and type of distribution were: Real Life Math (commercial); Telling Time (commercial); Name Writing (commercial); Working World (noncommercial); Turn Off the Sound (noncommercial); Ready, Set, Go (commercial); Developers Guide AV Kit (noncommercial); Rembolt Bibliography No. 5 (noncommercial); Handbook for Facilitators of Staff Training (noncommercial); Special Education Administration Training Program (noncommercial); A Survey of Higher Education Facilities and Services for Students with Disabilities (noncommercial); I Like the Overhead Projector Because (noncommercial); Photography As a Way to Learn (noncommercial); A day in the Life of Maria Boca (noncommercial); To Buy or Not to Buy (noncommercial); Communications Carousel (commercial); Kiddy Key (commercial); Sex Education (commercial); Clothing Construction Skills (commercial); Parental Skills Program for Parents of Handicapped Children (commercial); Toilet Training (commercial); Structured Tasks for English Practice (commercial - recalled by MSSD).

Objective 2, Prepare 15-20 selected instructional materials for entry and enter them into distribution.

This objective related to the entry of materials into both commercial and noncommercial distribution channels. Supporting strategies were:

1. Edit the materials that passed the thorough review-and-selection process.

2. Prepare materials for production.

3. Communicate to enter products into distribution.

4. Capitalize the reproduction of noncommercial distribution items (arrange to have the materials sold on a cost-recovery basis).

Objective 2 proposed to prepare 15 to 20 products. Twenty-two (22) products were prepared for distribution. (See titles under Objective 1.)

Objective 3, Provide technical assistance and consultation on product distribution planning.

This objective accommodated the provision of technical assistance and consultation face-to-face, through correspondence, and through telephone communication. Supporting strategies were:

1. Provide technical consultation and assistance to developers in developing distribution plans.

2. Conduct specialized searches for competitive products.

Objective 3 proposed to provide technical assistance as required, based on demand. Approximately 2,890 general information requests were responded to; 2,607 technical media requests were answered; and about 1,200 requests were answered relating to marketing, publisher information, distribution plan development, and product development. In total, approximately 6,700 information and technical assistance requests were responded to.

Objective 4, Provide market information to developers and distributors.

This objective was intended to provide market information useful to NCEMMH staff and to both commercial and noncommercial instructional materials developers and distributors. Supporting strategies were:

1. Assemble an information base on market information.

2. Disseminate market information to product developers and distributors.

Objective 4 proposed to provide market information to product developers and distributors. Four reports were completed, two as part of subcontract activity, one as part of NCEMMH-MSSD liaison assistance, and one produced by MMT. The MMT publication, The Special Education Market Report, was requested in excess of 1,000 times; all requests were responded to.

Objective 5, Identify product training needs to ALRCs.

This objective accommodated the need to identify products distributed by NCEMMH that required inservice training so that Area Learning Resource

Centers could provide such training. The supporting strategy was:

1. Disseminate such information to the ALRC.

Objective 5 proposed to identify product-training needs of ALRCs. This objective was not substantially fulfilled because ALRCs did not readily identify product-training needs to NCEMMH/MMT. MMT efforts to distribute the AV Kit for the Developers' Guide to respond to some ALRC product-training needs was limited to one presentation to the ALRC directors, and the disposition of ten copies of the Kit to SOMD. The availability of the Kit, both internal and external to BEH, should provide an additional resource to BEH in the future, although some revision will be required.

Objective 6, Facilitate acquisitions of materials that match the NIMIS data-base for the collection at the Special Office for Materials Distribution.

This objective accommodated the need to establish an inventory of NIMIS-matched materials with minimum to no cost to the federal government. The supporting strategy was:

1. Conduct acquisition plan.

Objective 6 proposed to acquire NIMIS matched materials for SOMD. The result was the Publishers Compact, composed of 59 commercial companies who voluntarily contributed more than 5,000 items to SOMD valued at more than $100,000. Additional participation in the Publishers Compact was halted by June, 1977; however at least 20 additional commercial companies have stated their desire to join since that time. The Publishers Compact has been more successful than originally planned and has been of significant support to BEH. The Compact represents one of the few instances where the federal government and the private sector have been able to work together cooperatively for the benefit of the handicapped learner, and as such it is a major indicator of public support for BEH activities.

Implementation of these objectives and strategies established an effective level of services. During the fiscal years 1974 through 1977 major accomplishments were executed in technical assistance, distribution, and marketing.

Technical Assistance

More than 10,000 copies of a booklet titled Standard Criteria for the Selection and Evaluation of Instructional Material were distributed through the United States. The criteria, compiled under the coordination of MMT staff and published by NCEMMH, are being implemented by major school systems and used for preservice instruction.

Developers' Guide: Preparing Materials for Distribution was prepared by MMT staff and published by NCEMMH. The guide synthesized technical assistance information for materials developers, particularly addressing the marketing and distribution questions that must be made early in the development process to assure distribution feasibility. By request, complimentary copies of the guide were sent to all project officers of the National Institute for Education and the Bureau of Education for the Handicapped as a resource manual.

Guidelines for the Representation of Exceptional Persons in Educational Material, published by the National Center, was distributed to more than 2,000 publishers and producers and to 1,000 agencies and organizations serving persons with exceptionalities. The guidelines were the result of the Consortium for the Appropriate Representation of Exceptional Persons in Educational Material, whose activities were coordinated by MMT staff in cooperation with the Council for Exceptional Children and other organizations. The guidelines were released at the April, 1977, national CEC convention. The coordination and publication of the Guidelines for the Representation of Exceptional Persons in Educational Material has had tremendous impact on the field of special education. The Guidelines were carried on Associated Press and United Press International wire services; major national newspaper carried articles about the Guidelines; and they have been distributed in more than sixty countries, world-wide. Requests for the publication continue to be received.

MMT also coordinated and arranged for NCEMMH to exhibit at the 1977 national CEC Convention. The response to the exhibit was extremely positive and reinforced BEH efforts through the ALRC/SO/NCEMMH program. The publicity initiated for products placed into distribution brought the public awareness of NCEMMH to an all-time high. Publicity advertisements for four products describing the distribution functions of the Center informed millions of readers that NCEMMH was available to help provide product resources specifically suited to enhance the education of handicapped learners. The result of these publicity efforts not only raised the level of awareness about NCEMMH, but was further evidence of the outreach of the BEH program to provide services for the handicapped.

Other technical assistance activities involved assisting the Model Secondary School for the Deaf and BEH. MMT coordinated two subcontracted market studies for BEH-sponsored products and assisted the subcontractors in completing the market reports as well as arranging for the editing, formatting, printing, and publication of three BEH products: Special Education Administration Training Program (three volumes and one generic model), Handbook for Facilitators of Staff Training, and a Survey of Higher Education Facilities and Services for Students with Disabilities. As a result of MMT and CS technical assistance activity to MSSD, the MSSD Liaison office market report, Selected Statistics on Deaf and Hearing Impaired Students: A Sourcebook for Developers and Demonstrators of Instructional Materials, was completed. Two subcontract market reports, as part of the MMT amendment activity, were completed and

submitted by Family Communications, Inc., and the Trace Center, University of Wisconsin.

Distribution

From FY 1973 to FY 1977 more than 700 potential instructional materials were received at the National Center for consideration. Many of them could not be accepted because they were outside the scope of the Center's mission. Consequently, figures represent only materials considered by the Center, not everything submitted.

1. More than 426 prototype instructional materials were considered and screened by MMT staff.

2. More than 272 of these instructional materials were thoroughly reviewed.

3. Approximately 27 were returned to the developer with recommendations for possible revision.

4. More than 100 prototype instructional materials were analyzed and entered into archival storage at the Special Office for Materials Distribution.

5. Forty-one materials were placed into distribution.

Although the total number of products is listed as 41, this total represents 362 components that were individually received, edited, and prepared for distribution.

Two channels for distributing noncommercial NCEMMH materials were used: the Ohio State University Press for printed materials and the National Audiovisual Center for multimedia materials. In addition, a complete Request for Proposal procedure was implemented for the commercial distribution of instructional materials.

All instructional materials made available for distribution by NCEMMH have been publicized nationally.

More than 20,000 material-specific announcements were disseminated by direct mail.

Announcements about every MMT material appeared in Apropos, the NCEMMH newsletter, and were distributed in several issues to a cumulative readership in excess of 300,000.

Advertisements were purchased in 1977 issues of the following national magazines: Teaching Exceptional Children, Learning, Instructor, and TV Guide (Chicago area only).

Announcements accepted by various periodicals, resulting from news releases sent by NCEMMH, resulted in free publicity reaching more than 5,000,000 potential readers.

All materials were exhibited at the 1977 CEC national convention, attended by more than 13,000 special educators.

Data on noncommercial distribution sales for FY 1975-FY 1977 shows that at least 5,400 educators are using special education materials as a direct result of their being placed into distribution by NCEMMH. Some materials have been translated or adapted and are being used in foreign countries.

Marketing

Much of the marketing information obtained by MMT staff was used for internal purposes. This information helped staff members decide whether a material under consideration was worth accepting. In addition, some marketing information was shared with developers of special educational materials who need technical assistance.

1. Hundreds of marketing-related inquiries were answered by MMT staff.

2. Market-related information was collected and assessed.

3. Marketing information files were developed.

4. Special education market information reports were prepared.

The Developers' Guide: Preparing Materials for Distribution was written and published, and an audiovisual orientation kit on the Guide was sent to ALRCs to help meet their materials-training needs.

The previously mentioned Guidelines for the Representation of Exceptional Persons in Educational Material was published.

Close-out activities for MMT focused on returning products received by MMT to product developers desiring assistance, shipping masters, archival and old network records and files to SOMD for archival storage, shipping masters to OSU Press and NAC for their use to continue noncommercial distribution of the products they handle for NCEMMH, and following up recently licensed products for commercial distribution.

During the five-year history of the Center, MMT placed into distribution 41 products. The increasing acceleration of numbers of products placed into distribution each fiscal year reflected the experience of the MMT staff, the clarification and refinement of procedures used,

and the increasing ability of the Center to inform product developers in the field of special education of working relationships with the Center to facilitate the distribution of their products. MMT, as had the Center, developed into a cohesive resource of significant value for the distribution of educational materials designed to enhance the education of handicapped learners.

INFORMATION SERVICES (IS)

The Information Services (IS) component of the NCEMMH in the years 1974-1977 successfully designed, implemented, and made operational the National Instructional Materials Information System (NIMIS). NIMIS was the first national information retrieval system to incorporate abstracts or descriptions of instructional materials on a large-scale basis. During this period more than 36,000 abstracts were entered in the system in a nationally compatible format to allow transfer with other data-bases and service vendors. This format or arrangement of bibliographic data is called MARC, or Machine Readable Cataloging, formulated by the Library of Congress. The NIMIS data-base was the largest collection of non-print and print child-use instructional materials in existence. It was further augmented by file partitions of teacher training, evaluation, and prototype materials.

NCEMMH Information Services, working in conjunction with Coordination Services and Media, Materials, and Technology Services, and supported by the Administration and Central Technical Services, brought a wide range of technical assistance, training, and information collection, organization and dissemination services to those engaged in educating handicapped children. These services are described in later sections, but a brief overview of operational figures is useful to understand the scope of work.

Expenditure of approximately $1,000,000 for Information Services, FY 75-77, with 18 full and part-time staff members.

Coordination of approximately $1,200,000 in abstracts preparation costs by the Specialized Offices.

Design, implementation, and operationalization of NIMIS on a national scale, with a data-base of over 36,000 abstracts.

Responding to requests and disseminating materials to more than 110,000 requests for information products, publications, and brochures.

Preparing individualized materials lists to more than 3,000 persons including 2,000 in the last year.

Distribution of more than 60,000 NIMIS abstracts.

Dissemination of more than 16,000 bibliographies to teachers, materials centers, and agencies.

Development of the Apropos mailing list of over 16,000 individuals, schools, publishers, and agencies for distribution.

Continued development and standardization of the vocabulary used in accessing special education materials (Instructional Materials Thesaurus for Special Education).

NIMIS data-base training for 18 regional centers and information service personnel (NIMIS User's Manual).

Publication of first directory of special education publishers and sources of instructional materials (Publishers Source Directory).

Compilation and publication of the National Catalog of Films in Special Education, pertaining to professional films.

These salient facts and figures are further explained below.

Scope, Functions, Personnel

Information Services was organized to collect, organize, store, retrieve, and disseminate information on instructional materials appropriate to the education of handicapped children for teachers, information specialists, parents, administrators, and others engaged in both special and regular education programs. To this end, Information Services developed, produced, and disseminated catalogs, bibliographies, indexes, and related information products such as Apropos, a newsletter intended to inform more than 16,000 readers about the ALRC/SO/NCEMMH program.

More than a third of the staff of the National Center worked in Information Services. In general, this area had the following scope and functions:

1. Develop and maintain a machine-readable data-base on instructional materials useful with handicapped children.

2. Produce catalogs, bibliographies, and indexes from the data base.

3. Operate a search-and-retrieval system to answer inquiries about instructional materials as a back-up to existing or yet-to-be-developed resources on the state and local level, and to match needs of teachers with sources of supply.

4. Maintain records on inventories, circulation, demand, reactions to service, and similar data.

5. Maintain source files on location and availability of instructional materials not included in the data-base in order to disseminate such information on demand and to state and local education agencies.

Current Objectives and Work Accomplished

Objectives 1, 2, and 3, Develop and maintain a machine-readable data-base; operate a search-and-retrieval system to answer queries about materials; systematically match source of demand with source of supply upon inquiry.

The primary thrust of Information Services resources and activity from 1974 through 1977 has been to establish the National Instructional Materials Information System, more frequently called NIMIS. The system was designed and implemented by the National Center in conjunction with the Area Learning Resource Centers and the Specialized Offices, all of which are part of the Learning Resource Center Program of the Bureau of Education for the Handicapped. The United States is divided into thirteen regions, each with an ALRC; and there are four Specialized Offices -- S1, Specialized Office for the Visually Impaired; S2, Specialized Office for the Hearing Impaired; S3, Specialized Office for Other Handicaps; and S4, Specialized Office for Materials Distribution.

NIMIS is the first national system of its kind. In the past, various agencies and individuals developed information systems designed to serve those who work with handicapped learners -- but they served only within given states or regions, and were not compatible with each other. Many of these systems worked well independently; however, before NIMIS was established by the National Center, there was no nationally coordinated system for identifying materials and for sharing common information across regional and state boundaries. The creation of NIMIS has been a positive step toward obtaining, organizing, storing, and retrieving such information in a manner that is most useful, cost efficient, and accessible to the target users. NIMIS data are available in the same format used by the Library of Congress and are therefore compatible with data from other national information centers and organizations.

In formal technical terms, NIMIS is a supplemental and backup computer-based on-line interactive retrieval system specifically developed to assist teachers, parents, and other educators in locating information about instructional materials in the field of special education where local resources do not presently exist. In simpler terms, an on-line interactive retrieval system is one that lets an individual "converse" with a computer, asking questions and getting

immediate answers. The NIMIS computer gives answers in the form of bibliographic abstracts. These abstracts can be instantaneously accessed on computer terminals throughout the United States during the computer's hours of operation. Each NIMIS entry includes (where pertinent) items of identification such as author, title, publisher, price, and abstract description. (See Figure 4a, representative NIMIS abstract.) NIMIS provided descriptive information for a nationwide audience concerning more than 36,000 instructional media and materials (see Figure 4). The system contained information on four major types of materials:

1. Child-use instructional materials: materials used by the child (or by the teacher and child interacting) in the process of education, instruction, and evaluation.

2. Teacher-training materials: instructional materials used to train or assist teachers or teachers-to-be in the selection, use, design, or adaptation of media, materials, and educational technology (such as how to operate instructional devices).

3. Evaluation materials: materials designed to evaluate, measure, and diagnose the current skills of a handicapped child.

4. Prototype materials: materials of an experimental or one-of-a-kind nature that have been developed as models for possible future development. These include materials that are not commercially available but that were reviewed by Media, Materials, and Technology Services at NCEMMH.

About three-fourths of the entries were for nonprint materials such as instructional kits, films, videotape and audiotape cassettes, filmstrips, games, manipulative materials, or transparencies.

The educational media and materials with which NIMIS was concerned were intended to provide assistance for a wide range of individuals with handicaps in learning, including visual impairments, hearing impairments, speech and language impairments, mental retardation, behavior disorders, learning disabilities, physical disabilities, other health impairments, and multihandicapping conditions.

The materials listed in NIMIS were used in a variety of educational settings with children attending private schools, institutionalized children with severe handicapping conditions, children receiving public school education and supplemented with special training, tutoring, and therapy, and children ranging in age from preschool to young adult.

Each of the first three Specialized Offices examined materials appropriate to the handicapping condition in which the office specialized.

Abstracts were then written describing these materials and submitted to the National Center, where the information was checked and entered into the system.

During Year V, thirty persons from the thirteen ALRCs, seven persons from the Specialized Offices, four from the Model Secondary School for the Deaf, and staff in the Bureau of Education for the Handicapped attended NIMIS search-and-retrieval workshops to learn how to operate terminals in their regions and offices. The increased number of professional staff qualified to do computer searches meant that NIMIS information became more widely available closer to home. In other words, the teacher who needed individualized computer searches was able to gain access to NIMIS without going beyond his or her region, or in many cases, his or her own state. Figure 5, the Search Request Form, shows the kind of information necessary to make a search.

Objective 4, Produce catalogs, bibliographies, and specialized products from the data-base.

The production of NIMIS bibliographies was a fourth activity of Information Services. NIMIS involved the skills of many people (including information specialists in the ALRCs, in the State Education Agencies, and in regional and local school districts), who provided information resources to those involved with educating handicapped children. A wide variety of products that can be used by such information specialists was made available from the NIMIS data-base, including the Instructional Materials Thesaurus for Special Education. The thesaurus lists and defines the vocabulary used to index materials included in NIMIS, and thus standardizes and promotes the use of consistent terminology in special education throughout the United States.

Information Services staff analyzed the information requests received both at NCEMMH and by the ALRCs. This analysis revealed topics frequently asked about and thus provided topics for the production of bibliographies of materials listed in NIMIS. These bibliographies in turn were disseminated free of charge not only to the ALRCs but also to more than 800 local learning resource centers. The printed bibliographies provided localized on-the-spot responses to information requests, avoiding the necessity of full-scale computer searches through NIMIS (see Figure 6). In other words, by means of these bibliographies, NIMIS and its contents were made available locally in a format consistent with national standards. In addition, NIMIS data were also made available on magnetic tape for those centers wishing to use their own computing facilities for access. Catalog cards, the traditional library organization format, were also made available through the National Center's affiliation with the Ohio College Library Center, the nation's largest bibliographic information-sharing network.

Figure 4

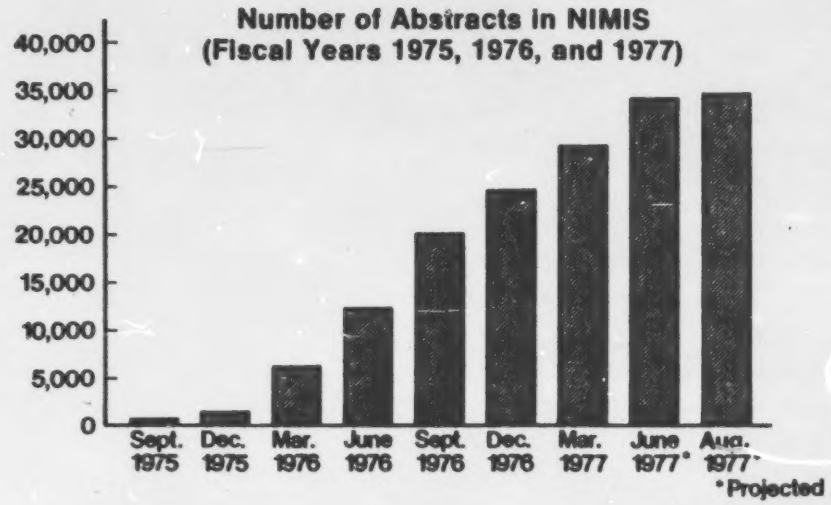


Figure 4a

Representative NIMIS Abstract
(Abridged from an Actual Entry)

AUTHOR/CORPORATE AUTHOR. Developmental Learning Materials
TITLE. Same or different color cards
PUBLICATION INFORMATION. Niles, Illinois, Developmental Learning Materials 1971
PRICE. $1.40

ABSTRACT DESCRIPTION. "Same or Different Color Cards" is designed to teach recognition of variance or similarity of color in different forms and objects. This material can be used to develop perceptual motor skills, shape identification, matching, and the learning of color names. The set consists of 30 cards which measure 2-3/4" x 4-1/2" and feature pairs of 15 items which stress color difference and likeness. The material is suggested for use at the readiness and grade 1 levels. A sheet of teacher information is included with the materials. LGG, 11-75.

EVALUATION INFORMATION. . . . Evidence shows that this material is currently being used by teachers in educational programs for the educable mentally handicapped, the emotionally disturbed, the learning disabled, and multiply handicapped. . . .

MEDIA FORMAT. Picture cards
DESCRIPTORS. Instructional, NIMIS, perceptual motor learning, likenesses differences, visual discrimination, classification, early childhood, kindergarten, grade 1, verbal response, visual, manual, independent, sequential approach, educable mentally handicapped, emotionally disturbed, learning disabled, trainable mentally handicapped, multiply handicapped, physically handicapped, speech handicapped.

OCLC NUMBER. 1909091*
PREPARATION SOURCE. 003-005 149 NCH*
ACCESSION NUMBER. IN 003-316 NCH*

*The OCLC number is a control number assigned by the Ohio College Library Center to each NIMIS abstract. The preparation source number tells where the abstract was prepared. A NIMIS accession number is assigned by NCEMMH to every abstract entered into NIMIS.

Figure 5

NIMIS **SEARCH REQUEST FORM**
for child-use instructional materials

Date _____
Is this your first request to NIMIS?
☐ Yes ☐ No

1. **USER INFORMATION.** *(Please print clearly.* Printout will be mailed to address given here.)

Name _____ Title _____

Organization _____

Address _____

City _____ State _____ ZIP _____

Telephone _____

The questions that follow are designed to assist in retrieving information about materials which will be responsive to your needs. Your care in providing full information about your needs will assist in developing a successful search strategy. Please fill out a separate form for each search you are requesting.

2. **SEARCH DESCRIPTION.** Use your own words to describe the types of materials you are looking for and please be as specific as possible.

3. **SEARCH PURPOSE.** Please indicate the purpose(s) for which this search will be used.

☐ selection of materials for individual/classroom use
☐ broad curriculum planning
☐ university course work
☐ research
☐ market survey
☐ other (please specify)

(OVER)

4. **SEARCH REQUIREMENTS.** Use terms from the third edition of the *Instructional Materials Thesaurus for Special Education*, if available.

A. Curriculum area(s) _____

B. Concept or skill area(s) _____

C. Educational or interest level _____

D. Handicapping conditions _____

5. **SEARCH LIMITATIONS**

A. *Format.* Please indicate any media formats which might be necessary and/or especially appropriate. _____

B. *Instructional Approach.* Please indicate any technique, method, or therapeutic approaches which might be necessary and/or appropriate. _____

C. *Input/Output Modes.* Please indicate any strengths or limitations relevant to input stimuli (e.g., auditory, visual, tactile) or response modes (e.g., verbal, written, manual). _____

D. *Date.* Do you wish to receive information about recent materials only? If so, please specify the latest acceptable year of publication. _____
(Items in NIMIS which do not include date of publication will still be retrieved).

E. *Other.* Please indicate any additional considerations which might be relevant to your search. _____

6. **SEARCH OUTPUT**

☐ A list of references giving only the title, author, publisher, date, price, and accession numbers.

☐ A list of references that includes the full bibliographic record—cataloging data, an abstract of the material, evaluation information, descriptors used in retrieval, etc.

7. **SEARCH RESULTS**

☐ needed within 1 week

☐ 1-2 weeks

☐ 3-4 weeks

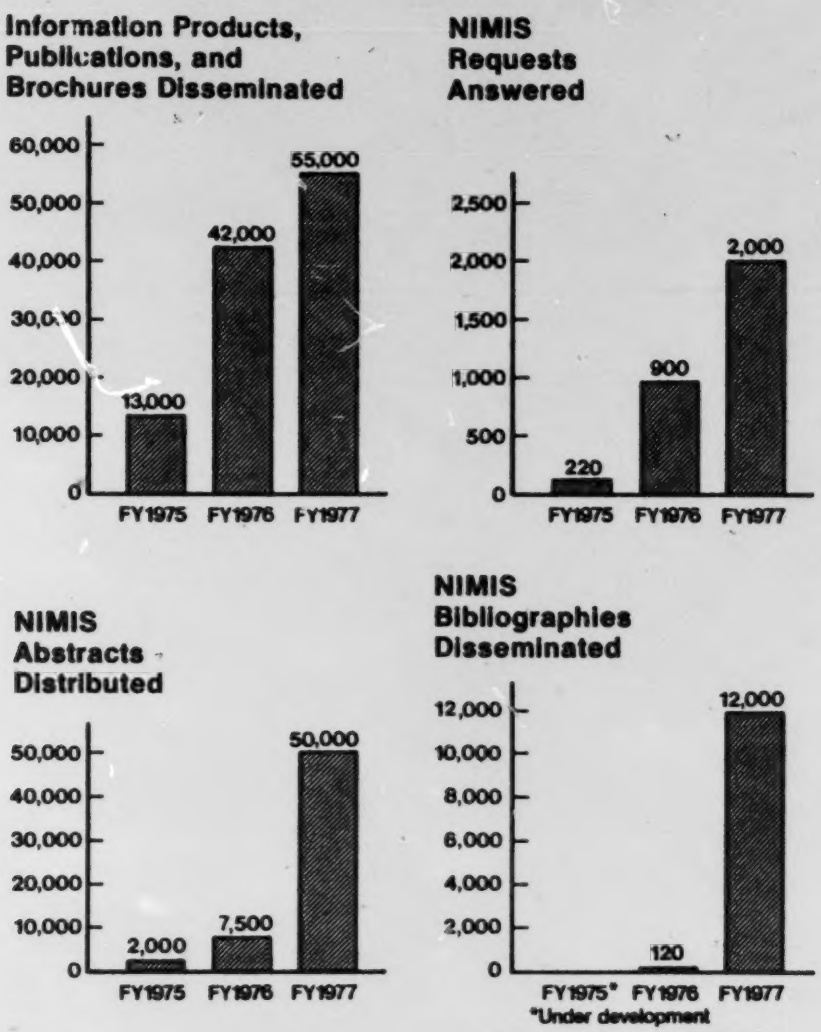
☐ If appropriate, please specify the latest date acceptable _____

Thank you for filling in this form. The information as provided here will be used to formulate an individualized NIMIS search. A reply, usually in the form of a computer printout, will be mailed to the address given in Section I.

It is the purpose of NIMIS to provide awareness information concerning instructional materials. We need to know if the abstracts you receive fill your needs. A brief evaluation card will be sent with the printout and we would appreciate your response so that we may improve our services to you. Thank you.

Figure 6

Growth in Requests for General Types of Information (Figures for FY 1977 Projected)



Objective 5, Maintain records on inventories, circulation, demand, reactions to service, etc.

A fifth major activity of Information Services was to keep track of how many persons were using NIMIS and related services. The Information Services area alone, by the end of Year V, had responded to more than 50,000 requests for information, products, and catalogs, as compared to 12,000 requests in fiscal year 1975. This increased level of responsiveness was due to increased awareness throughout the United States that the National Center had a reliable reputation of being able to provide appropriate information on educating handicapped children. The widespread and growing need for such information also accounted for the increase in number of requests. Tables 2 and 3 and Figures 7 and 8 illustrate the variety and national impact of NCEMMH services. The data in the graphs concerning users vividly illustrate the definite need for a coordinated information system, one that is responsive to the information requirements of teachers, information specialists, parents, and administrators.

Objective 6, Maintain a source file for answering inquiries about location of instructional materials for sale, rent, or loan.

The final major activity of Information Services supplemented the information stored in NIMIS. Information Services produced a series of information reference products dealing with sources of educational media to supplement computerized resources. These included the Publisher Source Directory, the last being its third edition, a reference book noting where to locate 74 different types of educational media and materials from more than 1,600 publishers, vendors, and distributors. This directory supplemented the information in NIMIS entries by furnishing the address of distributors named in each NIMIS entry. The National Catalog of Films in Special Education, also produced by Information Services, cited more than 600 professional films (professional films are not listed in NIMIS) that can assist in the education of handicapped children. Both publications were compiled with the assistance of the New York ALRC. In order to continue to update these two reference books, the National Center functioned as a national clearinghouse of pertinent data.

Table 2

Where Requests for Information Originate*

Geographic Area		FY 1975	FY 1976	FY 1977**
Alabama		75	295	3,400
Alaska		50	240	210
Arizona		60	520	120
Arkansas		40	150	35
Californ ia		740	1,655	2,100
Colorado		205	320	180
Connecticut		170	480	160
Delaware		30	75	60
District of Columbia		70	2,715	10,000
Florida		405	565	1,400
Georgia		450	445	650
Hawaii		80	260	25
Idaho		200	35	40
Illinois		700	1,055	1,300
Indiana		160	2,190	2,700
Iowa		240	900	2,500
Kansas		310	435	200
Kentucky		155	880	1,500
Louisiana		100	290	60
Maine		20	105	75
Maryland		400	385	1,600
Massachusetts		245	3,145	1,650
Michigan		600	3,210	2,200
Minnesota		300	1,365	950
Mississippi		85	115	170
Missouri		150	535	700
Montana		110	120	90
Nebraska		180	250	1,110
Nevada		40	4[illegible]	10
New Hampshire		70	1[illegible]0	320
New Jersey		600	[illegible]55	700
New Mexico		70	370	100
New York		1,280	2,585	5,000
North Carolina		155	720	900
North Dakota		30	130	35
Ohio		585	2,700	950
Oklahoma		75	380	230
Oregon		395	1,960	2,300
Pennsylvania		480	3,000	1,900
Rhode Island		20	135	100
South Carolina		70	130	75
South Dakota		105	140	70
Tennessee		90	295	370
Texas		455	770	280
Utah		345	165	50
Vermont		60	485	70
Virginia		155	510	510
Washington		370	675	2,100
West Virginia		355	440	70
Wisconsin		235	2,290	1,500
Wyoming		35	195	25
U.S. territories and foreign addresses		315	240	350
Total		12,720	41,960	53,200
Grand Total	107,880			

* Table excludes requests for *Apropos*.

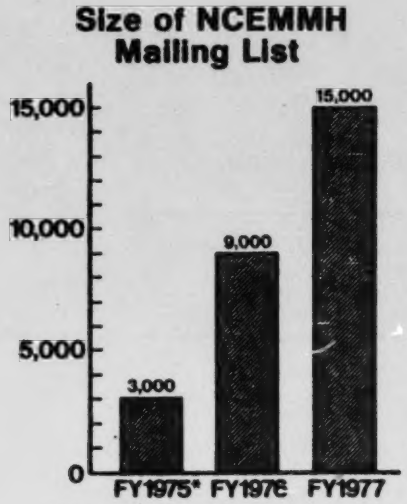
** Projected as of 5/1/77; based on first six months of activity for the fiscal year.

Table 3

Proportions of NIMIS Users by Category
FY 1977

Category	Percent
Information specialists, libraries and other information centers, and Area Learning Resource Centers	24
Teachers	10
Students (graduate and undergraduate)	10
Professional agencies and organizations	10
Administrators	9
Researchers, social workers, counselors, psychologists, doctors, and nurses	9
Curriculum specialists and educational specialists	8
Publishers	5
Unidentified	5
Total	100

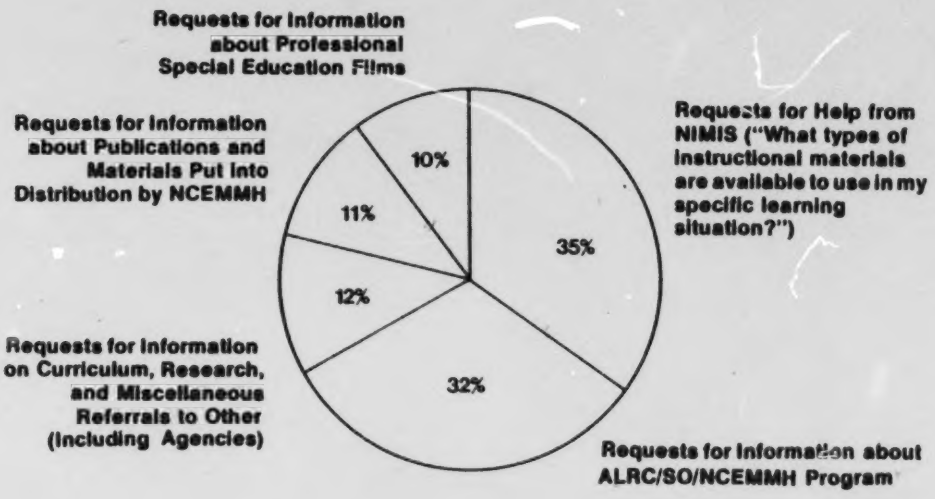
Figure 7



*The initial NCEMMH mailing list was supplemented by lists rented from the professional organizations named below in order to widen the distribution of *Apropos* for Spring, 1974; Summer, 1974; September, 1975; and January, 1976: American Speech and Hearing Association, Association for Educational Communications and Technology, Association for Supervision and Curriculum Development, and Council for Exceptional Children.

Figure 8

Types of Information Requests
(Average for Fiscal Years 1975, 1976, and 1977)


Requests for Information about Professional Special Education Films
Requests for Information about Publications and Materials Put into Distribution by NCEMMH
Requests for Help from NIMIS ("What types of instructional materials are available to use in my specific learning situation?")
Requests for Information on Curriculum, Research, and Miscellaneous Referrals to Other (Including Agencies)
Requests for Information about ALRC/SO/NCEMMH Program
10%
11%
35%
12%
32%

Projections for the Future

NIMIS, Apropos, and the other Information Services publications, taken as a whole, are a valuable and unique first step in providing a unified and consistent information base to be used by educators of handicapped children. Teachers and other educators used NIMIS and other IS services because the services helped in all the following ways:

1. Provided not only national availability of data concerning information on materials but also nationwide consistency.

2. Provided back-up services to places where services do not presently exist and are yet to be developed.

3. Provided awareness about materials to teachers of handicapped children.

4. Furnished information on an as-needed basis.

5. Provided for information sharing among users to promote wider usage of shared experiences.

Future projected activities should widen the scope of NIMIS. For example, it is expected that the number of materials listed in NIMIS could expand from the current 36,000 to more than 75,000 items. However, it is not likely that the number can exceed a maximum of 75,000 in the foreseeable future, especially when attrition is taken into account. In other words, although more entries could continue to be added regularly as new materials become available, some would need to be subtracted. For example, NIMIS entries would be deleted when materials are declared out of print or unavailable from the publisher or are superceded by newer materials more appropriate for specific learning situations.

In addition, the activity of collecting data on how many NIMIS abstracts are used, of what sort, by whom, and in what areas of the country could increase. Feedback would enable NIMIS to increase its responsiveness to the expressed needs of those it serves.

Previous operational experience with users, and with product development and generation, afford the opportunity to enlarge upon these efforts to provide a full-service information center. This could include the addition of print and teacher-use materials to supplement the current data-base. The support of individualized instruction and programming efforts would be a concurrent outcome of continued NIMIS development, as well as an expansion of the prototype and archival data-bases to support comprehensive materials development. Materials for paraprofessionals, parents, and volunteers could also be included.

Correlated with this would be incorporation of relevant research on instructional media, materials, and educational technology.

NIMIS and its further development and modification will be solely dependent on firm and consistent federal support. To date that support has not been forthcoming; witness the inception of the resource centers program in 1964, ten years elapsed before the first unified materials system evolved, and then in 1977 contractor changes by the federal sponsor delayed the fruition of the developmental and operational efforts attained by NCEMMH. This programmatic inconsistency and interference by the federal sponsor is a most serious obstacle to fulfillment of effective program development. This constantly changing program posture deprives educators of handicapped children of stable access to the resources needed to meet mandated goals.

COORDINATION SERVICES (CS)

The primary function of the Coordination Services (CS) area of NCEMMH has been to coordinate directly among eighteen independent contractors: thirteen ALRCs, four SO's, and NCEMMH. It has been assumed that this nationally coordinated effort affecting these projects will improve delivery of educational support services to the handicapped. It has also been an ongoing CS responsibility to effect articulation with the Regional Resource Centers Program of the BEH/Learning Resource Branch (LRB) field-services program: CORRC and the thirteen RRCs. A result of this coordination effort has been to create a nationwide communication/accountability system, one best characterized by well-articulated and proven-effective workscopes. Although the CS workscope (the specific work authorized) has evolved over the past three years, the basic objectives of CS have remained quite stable. These objectives touch on six key activities, each of which has been a CS task: communicate, convene, disseminate, implement, provide liaison, and manage. Of these responsibilities, perhaps the single, most important contribution has been the development of basic work plans (workscopes elaborated) for ALRCs, SO's, and NCEMMH. Well-coordinated with CORRC and the RRCs, these work plans greatly facilitated program planning and monitoring, thereby insuring increased coordination at the activity level, ensuring comprehensive delivery of media services.

Effecting such program coordination has long been a BEH/LRB goal. It has been reported that program coordination under the present system surpasses anything heretofore attempted or realized in USOE. Appreciable evidence is available in support of this statement.

The primary function of CS has been to support BEH/LRB efforts in the field. Through special groups, products have been developed and disseminated to clarify program goals and objectives and to announce BEH/LRB intentions and policies. Accountability reporting has been provided to supply BEH/LRB staff with information needed for

monitoring and decision making. Standardized documents from ALRCs, SO's and NCEMMH were produced quarterly.

Other CS products included semi-annual progress reports documenting the activities of six committees, annual directories of personnel and learning resource center information, guidelines documents for producing LRCP continuation proposals and technical reports, National Needs Assessment papers, materials concerning "full services" program clarification and underlying rationale, and other special reports and information-sharing documents as requested by BEH/LRB.

Coordination Services was created in 1974. This service area was established to promote "network and clearinghouse functions for interstate resource sharing" (workscope element 4.1.H.). In part, these functions were either continuations or needed logical extensions of operations previously conducted by the Network Coordination Office located with the Council for Exceptional Children (CEC) through the period 1968 - 1974.

In 1974, the Bureau issued an RFP for a revised system of delivering service. A special workscope was developed to describe relationships among the eighteen centers implementing contracts for the BEH Learning Resource Centers Program. Coordination of these units was vital to the continuing program of educational media and materials support. Smooth transition from the old system to the new and the need for increased accountability information were fundamental concerns. Responsibilities similar to those of the former Network Coordinating Office were shifted to the National Center's Coordination Services area. The new Coordination Services office was also charged with maintaining a Liaison Office at the Model Secondary School for the Deaf and with relating to the Coordinating Office for Regional Resource Centers, whose prime objective was to assist in combining ALRC and RRC services so that the two programs served consumers more like a single Learning Resource Center.

These objectives have been successfully addressed by Coordination Services over the past three years. As a natural development, the general statement of work and office organization have been changed periodically to respond better to programmatic needs. The present workscope of the Coordination Services area is summarized under four major objectives, explained in the next section.

Coordination Services came under the direct supervision of the National Center Director, who also monitored Liaison Office activity at the Model Secondary School for the Deaf. For FY 1977, CS was organized as shown in the organization chart, Figure 1, page 8. The Network Operations Coordinator was responsible for all convening functions; the Network Coordinator for Management Information implemented all accountability information practices; the Technical Assistant coordinated all requests for assistance with appropriate sources of assistance; and all CS staff provided "program definition and

reconceptualization" and produced documents of immediate utility to the Bureau. Thus, the four objectives of CS produced significant network and Center accomplishments with direct relationship to the emphases stated in the last year of the "old network."

It should be noted that during the last three years there was a pronounced shift from development to implementation. That is, Coordination Services capitalized on developments initiated during the years 1968 through 1974 and widely promoted use of ALRC/SO and BEH information sources. The years 1974 through 1977 are best characterized by implementation of strategies, models, reporting tools and processes exemplary practices, and the like-all intended to effect a full measure of coordinated activity to promote program effectiveness. A close look at objectives and strategies shows how Coordination Services supported other program units and the NCEMMH mission, and how CS evolved from its early CEC days. Building on developments conceptualized during the 1968-1974 period, CS has contributed many processes and products to the Learning Resources Branch and its associated field units. Throughout its brief three-year history, CS has fulfilled each contracted obligation.

The major goals reflected the mission of Coordination Services:

1. Facilitate the evolution of programs that are accountable.

2. Facilitate a program-wide understanding of LRCP mission.

3. Identify innovative teaching, learning, and administrative practices which, when implemented, result in predictable and positive program impact.

From the four objectives which follow, it is clear that CS has established a structure responsive to the purposes of these three major goals.

Objectives, Strategies, and Work Accomplished

Objective 1, Convene Learning Resource Center personnel as required for information sharing and resolution of program-implementation issues.

It has long been recognized that through coordination of individual contractors (such as those sponsoring ALRCs, SO's and NCEMMH), it is possible for a program to have impact far beyond what might be anticipated if individual contractors were to operate independently. This process has been called "progress maximization" resulting from information sharing and mutual planning of those activities which, by definition, cover a complete network in scope. That is, the worthwhile, productive accomplishments of individual agencies, be they products or

processes, do not have to be reinvented and duplicated by each contractor. Rather, through sharing and follow-up planning, beneficial products and processes are made available for use by others without the needless expense and burden inherent when separate-but-related contractors are forced to operate without coordination. And, even more important, a structure emerged whereby groups of contractors (or their designates) focused on specific problems, needs, and concerns of primary significance to all contractors, with their combined interest and expertise being brought to bear on the central issue.

There were two strategies under which "convening" was effected: conduct Standing and Steering Committee meetings and conduct ALRC/SO Directors' meetings. Combined, these two activities accounted for approximately forty-five percent of the CS resource expenditure.

Program activities for six Standing Committees were supported. They focused on:

1. State Program Development,
2. Instructional Materials Development,
3. Media, Materials, and Educational Technology Training,
4. Media and Materials Information System,
5. Materials Distribution System, and
6. Project Administration.

The committee names identify the issues which each committee addressed. The Steering Committee consisted of chairpersons representing each Standing Committee, a representative of the National Advisory Board of NCEMMH, a representative state director of special education, and the director of the National Center. For special projects, task force groups were also formed. As a rule, three Directors' meetings were held each year, time and site changing in a manner to respond not only to directors' needs for information but also to the availability of exemplary models of practice for presentation and dissemination. Committee or task force meetings were frequently held in association with meetings of program directors.

Common program understanding emerged through committee efforts. The "convening" objective made possible the kind of field-based progress that is unlikely when individual contractors operate independently. Committee interaction combined with opportunities for directors' meetings created a forum for disseminating sponsor direction to contracting centers, greatly increased the potential for supplying programmatic input regarding planning and monitoring, created a field-articulated forms-clearance process, and significantly increased the exchange of

regionally developed processes and products of immediate utility to other centers.

Changing needs for committees, modified levels of funding, and other factors influenced the scheduling of group sessions. Directors' meetings were usually held three times annually. During FY 1976, each of the six Standing Committees was authorized to meet a total of four times annually. These arrangements were revised for the period September 1, 1976 through August 31, 1977. Reports on committee activity, products, and major contributions leading to better, more effective, and more responsive educational alternatives for the handicapped were published semi-annually by NCEMMH. These reports were voluminous and were written to a level of detail beyond the intent of this document, but the interested reader is invited to request copies from BEH.

During FY 1977, a special and carefully selected group of program personnel was assembled to address the problem of how best to use existing ALRC competencies to support State Education Agency efforts mandated by Public Law 94-142. This group was called the "Task Force on Intrastate Activity," and produced the most insightful and cogent statement yet prepared on ways ALRCs can help states implement P.L. 94-142. The purpose of this Task Force was to document whether, how, when, and by whom State Education Agency support services were available. The resulting model was merged with a counterpart model from the RRC sector and describes clearly and succinctly the "Full-Service Frame-of-Reference" through which federal support may be provided regionally between October 1, 1977, and September 30, 1980. Thus, the federal government has received a program-impact bonus as the direct result of the convening functions of Coordination Services over the past three years. Those who instruct the handicapped are better able to perform their assignments because creative developments by these groups have become available through State Education Agency staff to the local level.

Objective 2, Provide for ALRC/SO/NCEMMH/BEH needs for program-relevant technical information.

The intent of this second objective was to supply useable, meaningful information from the Coordination Services office to those who worked the Center level. Coordination Services served as a source of expertise and personnel in support of program units' activities.

Three separate and distinct strategies were used to promote information sharing to the maximum extent possible. First, Coordination Services was responsible for designing, implementing, and maintaining a fully developed management information system. This responsibility included working with the committee on project administration and with individual contractors and their respective staff representatives to generate valid, reliable accountability data for each center. Then, it was further the responsibility of Coordination Services to aggregate

the seventeen individual reports into basic summary documents. This reporting was done quarterly, with cost-accounting and personnel deployment factors analyzed, and with concise statements describing program progress in common terms. Second, Coordination Services documented the Learning Resource Center program (LRCP activity, model practices, and other program accomplishments). The third strategy incorporated internal coordination at NCEMMH with parallel activities at ALRCs and SO's. Thus, the National Center served as a management information system "testing ground." Workable management models, strategies, and documents were first evaluated by NCEMMH and then disseminated for use by field-based centers. About thirty-three percent of the CS budget supported Objective 2.

Under Objective 2, accomplishments included:

a. Standardizing summary reporting for all ALRC/SO/NCEMMH units.

b. Initiating the identification of exemplary practices.

c. Compiling and publishing single director of personnel in both the ALRC/SO/NCEMMH system and the CORRC/RRC system, as part of the "single-system concept."

d. Demonstrating that single-system design was applicable to other programs.

Under the second of the four CS objectives, information about the LRCP in operation and as conceptualized was produced for two fundamental purposes: (1) to create monitoring devices for federal project officers and (2) to foster definition and clarification of service delivery by ALRCs, SO's, and NCEMMH. Coordination Services played a major role in achieving both purposes.

Beginning in September, 1974, Coordination Services became the driving force behind the development of working elaborations of the workscope used in writing Requests for Proposals. CS staff effectively used the original workscope element structure in preparing elaborate documentation of the precise operational definitions underlying each element. In this general framework, CS designed and implemented the first full-scale management information system accountability process ever used in the ALRC/SO/NCEMMH system. A major undertaking relying on cooperation and effort from all eighteen individual contractors, the quarterly summaries of ALRC, SO, and NCEMMH program progress analyzed activity in detail. Depending on the level of detail needed, the user of summary documentation can quickly find program-level statements; or, if the need is for detail regarding an individual center, that detail is identified clearly and presented in terms of immediate utility during the programmatic decision making that leads to project officer intervention as required.

CS undertook many special projects during the three-year period, such as writing an impact evaluation study, writing an incidence/prevalence report, preparing ALRC/SO product lists, preparing the Agency Survey, and compiling personnel directories. In each instance, these productions have provided BEH/LRB with specific, detailed documented information for use by ALRCs and SO's in more effectively delivering service to target groups. An excellent example is Coordination Services work with the Project Administration Committee to clarify programs through the "Common Definitions" document completed in FY 1976.

As a direct result of CS Objective 2 activity, the Bureau's Learning Resources Branch is assured system inputs fundamental to project monitoring under the new legislation. In place is a single system for accountability reporting, well-articulated with and responsive to the most current Bureau and Branch needs. The system is prototypical in the sense that it serves as a model for gaining increased control and more effective program monitoring. This potential for control and monitoring can be integrated effectively and efficiently with data and programmatic direction indicators expected to emerge from the National Needs Assessment. A logical extension of this system to a machine-based approach for "tracking" individual student progress through individualized educational program planning and implementation is now possible. A full-scale computer managed instructional system could follow, when each student's individualized educational program progress would be available to parents, teachers, and supervisory staff on an interactive basis.

Objective 3, Supply and coordinate NCEMMH-based technical assistance required by ALRC/SO Centers and Standing/Steering Committees.

Coordination Services received many requests from field units for technical assistance. Under the direction of the CS Technical Assistant, each request was clarified, needed information was fully identified, the correct source within NCEMMH was identified, and the Technical Assistant followed through to make sure the request was treated comprehensively. In this fashion ALRCs, SO's, and Standing/Steering Committees received vital information to support production efforts. Objective 3 was supported with six per cent of the CS financial resources.

Upon request, CS provided technical assistance:

1. To ALRCs and SO's in project planning, operation, and evaluation.

2. To the ongoing Bureau process of preparing project officers for program monitoring and intervention roles.

3. To planners in the Bureau's Division of Personnel Preparation to identify training needs consonant with the LRCP approach to service delivery.

The concept of providing technical assistance directly from the National Center to field units evolved over the three-year period to the point that diverse competencies at NCEMMH were available to assist ALRC and SO operations. The various types of technical assistance covered most major workscope elements. A formal listing or announcement of types of technical assistance and NCEMMH staff who could provide such assistance was circulated among program contractors. In addition, within the three major NCEMMH service areas, other sources of expertise were made available to individual contractors.

Under technical assistance, two subordinate functions were coordinated: the Internship Program and a number of workscope-related training activities. The CS role in all technical assistance and training/internships strategies was to coordinate field-based requests for such assistance with the most appropriate source of expertise at NCEMMH.

Because of coordinated technical assistance, the Bureau's Learning Resource Branch now has standardized accountability reporting for all ALRCs, SO's, and NCEMMH. This standardized process is fully articulated with the RRC/CORRC system. Many efficient program innovations can be attributed to technical assistance from NCEMMH, and an enhanced level of articulation among Bureau programs became evident.

Objective 4, Support LRB needs for assistance in program definition and reconceptualization.

Approximately seventeen percent of the CS financial resource and about eighteen percent of the CS manpower resource were allocated for support of BEH/LRB program needs. In this context two major strategies evolved: first, respond to requests for National Needs Assessment assistance; second, facilitate program rethinking by responding to BEH/LRB requests for position papers, technical reports, guidelines, documents, and so on. All activities under Objective 4 were fully articulated with appropriate BEH/LRB staff to provide services to increase the impact of the overall LRCP mission.

Accomplishments included assisting in the initiation of the National Needs Assessment; helping coordinate the subsequent phase-in of the National Needs Assessment; elaborating the workscope further and further defining the program; developing prototype intrastate workscope, and assisting the Aid-To-States Branch in securing needed inputs for reports to the Commissioner concerning P.L. 94-142.

Objective 4 was one of the most rewarding and contributory activities of Coordination Services. There were two main types of reporting documents: reports supporting the National Needs Assessments and program-related reports, particularly those identified by BEH/LRB staff and then assigned to CS for coordinated development.

National Needs Assessment Processes, under the contract awarded to Educational Testing Service (ETS), Berkeley, relied heavily on CS for coordinated implementation. Work with the National Needs Assessment goes back to before 1974, when the National Center prepared NNA proposals for Bureau review. Out of this effort, a contract for the National Needs Assessment was awarded to Educational Testing Service, whose NNA plan placed significant fundamental emphasis on the model developed earlier at The Ohio State University by NCEMMH. National Center CS staff assisted in preparing the RFP leading to the contract, and produced a technical memorandum to accompany the RFP; this memorandum required staff time, work which benefitted from staff experience and expertise and files accumulated earlier. The memorandum was essential to expedite National Needs Assessment progress by the Educational Testing Service. A second function by CS (with help from other network representatives) was to assist in coordinating personnel preparing questionnaires and to coordinate National Needs Assessment process and instrument review outside the Educational Testing Service. CS was committed to coordinating preparation of a guidelines document that would assist regional NNA report writers, as they prepared their respective documents from ETS system outputs.

Numerous other program-specific documents were prepared by CS to be responsible to BEH/LRB needs. For example, an incidence/prevalence report was produced to replace certain demographic data items originally the responsibility of ALRCs under contract through RFP 74-8. This report provided a full set of carefully prepared population tables in the age ranges birth-five, 6-18, and 19-21, used for BEH child-count and child-served surveys. Using incidence rates supplied by BEH, tables estimating prevalence were constructed according to states, regions, and the nation as a whole. Although such estimates are subject to full review by the special education community, and in spite of the procedural limitations under which the tables were assembled, it is interesting to note the correlation of national values in the report with prevalence estimates under P.L. 94-142.

A study of indirect cost was conducted to clarify precisely what is meant when the negotiated data for project overhead are being discussed. That is, a local rate is established between the federal government and a field contractor. The rate is assumed to cover overhead expenses incurred by the sponsoring institution. However, the rate varies from contractor to contractor, and even within categories covered there is appreciable variance. Further, it was not until the study had been in process for several months that it became clear that Project Directors in the field had only limited awareness of what they actually received under their provincial rate(s). The indirect cost study pointed out the vagaries in direct comparison of two or more contractors' rates, and developed increased appreciation for what is actually covered by "overhead" costs. However, including a set of significant factors in the comparison model created a reasonably stable "index" of rate, which improved comparison measurably.

A third major reporting document category is guidelines. At various times, it became advisable to coordinate field reporting, in order to reduce Bureau staff time needed to monitor and assist individual contractors. To this end, CS produced guidelines for NNA reporting, proposal writing, technical report writing, final report writing, and for contractor use in submitting products and equipment to BEH/LRB. Without exception, these guidelines were prepared with full involvement of appropriate Learning Resource Branch staff. As mentioned earlier, Coordination Services also devoted a major portion of its time to work-scope elaboration. The extensive documentation CS produced was of signal impact in the field. The combined effect of guidelines and elaboration documentation has been to create a common ground for programmatic decision making; that is, the Bureau and all individual contractors can discuss "best practices" in common framework. Thus, extensive evidence supports an assertion of significant program impact during the period September 1, 1974 through August 31, 1977.

Coordination Services also fulfilled a role in preparing the regulations for P.L. 94-142. CS was especially successful in obtaining field input for use by Bureau staff. During FY 1977, CS also coordinated the production of a series of seventeen position papers for the Bureau. Under the editorship of Robert Heinich, Indiana University, and associate editorship of S. C. Ashcroft, director, NCEMMH, these papers gave LRB staff and BEH managers refreshing insightful views of future directions available to the Bureau.

As a whole, documentation under Objective 4 facilitated Bureau impact through clarification and common understanding of program mission. Program expectations could be stated in terms understandable by all involved parties; measurement of program progress became standard; monitoring by Project Officers in BEH/LRB became increasingly proficient. Taken together, when National Needs Assessment reports become available, the Bureau should capitalize on competencies and processes of existing regional and center contractors to implement a responsive Learning Resource Centers Program.

Projections for the Future

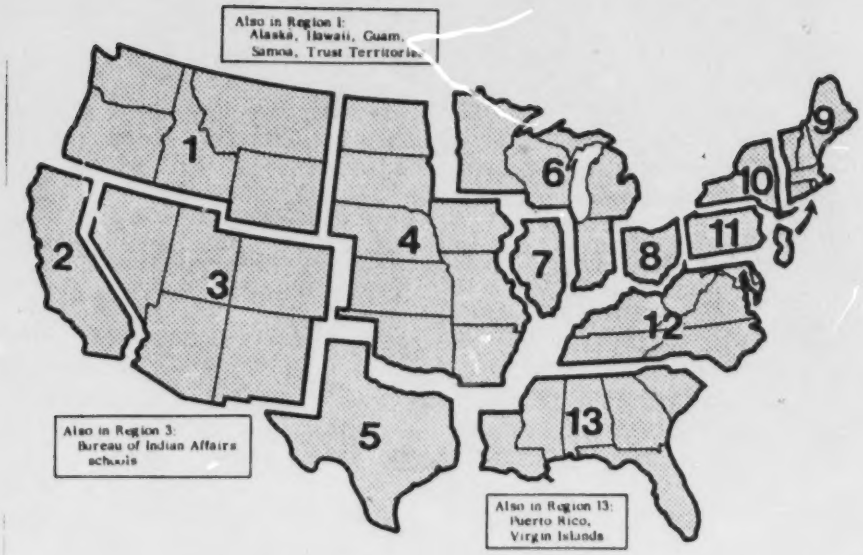
It can no longer be questioned that externally coordinated field contractors are more productive than and realize impact levels beyond those expected from uncoordinated contracts. How external coordination is best applied (as opposed to internal coordination to individual contractors) is still subject to inquiry. Nevertheless, full Bureau support of State Education Agency attempts to comply with P.L. 94-142 mandates could come through external coordination of regional contractors who will have contractual obligations to provide exemplary support of State Education Agency attempts. A fine example of how Coordination Services could assist in effecting the support required is found in the Full-Services Frame-of-Reference context. Little useable work preceded

this joint effort to clarify what "Full Service" meant, under what aegis service was provided, who was charged with effecting service delivery, etc. There is little or no evidence (or justification) to support the contention that individual contractors should work out "models" with each State Education Agency. There is a common understanding of "Full Service." CS could contribute to clarification and subsequent documentation leading to more effective service delivery to the handicapped.

Coordination Services personnel could assume a continuing role in National Needs Assessment reporting. As the NNA reports are filed, it is reasonable to assume that phased-in NNA steps will follow, as suggested in the needs assessment RFP. CS could assist BEH/LRB in promoting efficient and effective NNA implementation.

In future years, program continuity, the direct result of well-articulated predecessor programs, will start at a level unsurpassed previously and should continue at a level unattainable otherwise. Service delivery to state and local education agencies thus will be more responsive to their needs related to implementation of P.L. 94-142. In this context, there has been and will be greater program impact due to dissemination of "best practice" (exemplary models incorporating child-use instructional materials), followed by technical assistance to train local-level implementers.

Figure 9



How the States Match up with the Area Learning Resource Centers, by Region

Each region shown in this map is served by an Area Learning Resource Center. The alphabetic list of states given below shows the region which serves each state or territory of the United States.

State	Region	State	Region	State	Region
Alabama	13	Maryland	12	South Dakota	4
Alaska	1	Massachusetts	9	Tennessee	12
Arizona	3	Michigan	6	Texas	5
Arkansas	4	Minnesota	6	Utah	3
California	2	Mississippi	13	Vermont	9
Colorado	3	Missouri	4	Virginia	12
Connecticut	9	Montana	1	Washington	1
Delaware	12	Nebraska	4	West Virginia	12
District of Columbia	12	Nevada	3	Wisconsin	6
Florida	13	New Hampshire	9	Wyoming	1
Georgia	13	New Jersey	9		
Hawaii	1	New Mexico	3		
Idaho	1	New York	10	Bureau of Indian Affairs schools	3
Illinois	7	North Carolina	12		
Indiana	6	North Dakota	4		
Iowa	4	Ohio	8		
Kansas	4	Oklahoma	4	Guam	1
Kentucky	12	Oregon	1	Puerto Rico	13
Louisiana	13	Pennsylvania	11	Samoa	1
Maine	9	Rhode Island	9	Trust Territory	1
		South Carolina	13	Virgin Islands	13

SUMMARY

The National Center on Educational Media and Materials for the Handicapped has functioned as a project of the Bureau of Education for the Handicapped to bring to reality the Congressional intent to provide a comprehensive program facilitating the use of new educational technology in programs for the handicapped. Only a few years ago, the general public seemed to believe that federal efforts could improve conditions for the poor, for minorities, and for the handicapped. Recently, this faith has been rapidly changing to an attitude of little confidence in federal programs. Against such a background of rapid change in attitude, the National Center has proved that federally funded programs can succeed by developing a viable program of national support for regional, state, and local efforts for educating children with handicaps.

Today there are specialized materials for educating handicapped children that would not otherwise be available. There are standards and criteria for the selection and evaluation of instructional materials not heretofore established. Guidelines have been promulgated for the equitable portrayal of the handicapped in media and in instructional materials, for the guidance of producers. Technical assistance is available to reduce wasteful and misdirected efforts on the part of materials developers who, though knowledgeable about the special education of the handicapped or about educational technology, are unaware of the technicalities and legal problems entailed in the development, publication, and distribution of effective instructional materials. The likelihood that materials developed for handicapped children by special educators will languish on the shelves because of lack of expertise in publishing and marketing has been reduced. The cooperation of numerous prominent publishers has been obtained in contributing instructional materials through the Publishers Compact to a national distribution center that makes available high-cost low-demand materials when needed at the local education agency level. Traditionally, many commercial publishers avoid instructional materials for the handicapped as potentially unprofitable. They consider the "thin market" to be too small, and consequently "low incidence needs" have often gone unmet because no commercially distributed materials were available. National Center efforts have helped counteract this attitude of publishers. Federal assistance channeled through the Center has enabled many so-called "thin market" materials to become available for use by educators and handicapped learners who need them.

The National Center's National Instructional Materials Information System (NIMIS), the first national system of its kind, became a unique product of cooperation among contractors in the BEH/Learning Resource Centers Program. Replacing numerous independent and uncoordinated information systems, NIMIS provided a single nationally coordinated system making effective use of the best of technology and information science, using nationally recognized standards and criteria for

processing and disseminating information, and employing the expertise of a wide range of knowledgeable special educators. Through this system, parents, teachers, and other professionals had available to them sophisticated information services comparable to those available in business and industry and without equal in education and behavioral science. In addition to answering numerous specific inquiries from those who are concerned about the education of the handicapped, the Information Services component of the National Center provided general information useful in the special education of the handicapped and previously unavailable through any other single source. Information Services, the National Instructional Materials Information System, and other service components of the National Center (often working with the Educational Resources Information Centers, including the ERIC Clearinghouse on Exceptional Children) provided incomparable information and technical assistance to improve the education of handicapped children.

Working directly with seventeen other agencies associated in the Learning Resource Centers Program and with numerous other agencies have similar goals and objectives, the National Center has facilitated the development of a coordinated program. Thus, uniform program accountability data are available on eighteen contracts with the Bureau of Education for the Handicapped for the Learning Resource Centers Program. Coordinated efforts among these agencies were directed toward developing instructional products for use by handicapped children and their teachers. Training and training materials for personnel who provided these services were made available. Distribution plans were made for those high-cost, thin market materials elsewhere unavailable or inaccessible to those who need them. A single, coordinated, national system of providing information on instructional materials was provided. These coordination services facilitated effective program implementation at countless local education agencies, through fifty-seven state education agencies with the help of thirteen Area Learning Resource Centers and the five national projects that were known as Specialized Offices and the National Center on Educational Media and Materials for the Handicapped.

Changing needs and changing emphases at the Bureau of Education for the Handicapped have called for a decentralization of the multiple functions originally conceived for the National Center. Public Law 94-142 modified the legislation establishing the National Center to call for National Centers rather than a single National Center. Having invested significant effort for half a decade in these areas of interest, The Ohio State University and particularly its Faculty for Exceptional Children in the College of Education aspire to continue to help facilitate the use of new educational technology in educational programs for the handicapped.

APPENDIX 1

NCEMMH PUBLICATIONS

These publications are listed alphabetically by title. If publications were in distribution as of October 31, 1977, the name of the distributor is given in parentheses. The names and addresses of the primary distributors are:

ERIC Document Reproduction Service
Computer Microfilm International Corporation
P.O. Box 190
Arlington, Virginia 22210

National Audiovisual Center
General Services Administration
Attn.: Order Section
Washington, D. C. 20409

Ohio State University Press
Publications Sales Division
2070 Neil Avenue
Columbus, Ohio 43210

A number of instructional materials were placed into commercial distribution by the Media, Materials, and Technology area of NCEMMH by means of RFP procedures. Full names and addresses appear in parentheses with these titles.

In the case of ERIC, the ERIC number must be used when ordering a title. ERIC distributes not only out-of-print NCEMMH materials, but also a few that are still in print.

In the case of the National Audiovisual Center, the NAC title number must accompany orders.

Instructions for ordering appear in the NCEMMH catalog.

Publications issued prior to December, 1974, did not have a National Center publication number. This list includes titles of publications issued from 1974 on. Documents prepared by NCEMMH in 1972 and 1973 when the staff was small are out of print, and were originally prepared for limited audiences (such as quarterly reports submitted to BEH). A few early documents that are still in demand are included in the list as available through the ERIC Document Reproduction Service.

Titles issued by the Model Secondary School for the Deaf in their MSSD Curriculum Guide Series are included in the list, although NCEMMH

did not publish them. NCEMMH gave technical assistance in the early stages of their preparation, in accordance with P.L. 91-230, and they were publicized in Apropos and are stored by the Ohio State University Press. Orders for MSSD materials should be addressed to:

Dissemination, Box 104
Division of Research and Evaluation
Model Secondary School for the Deaf
Gallaudet College
Washington, D. C. 20002

In some NCEMMH records, such as quarterly reports, publications worked on by the Media, Materials, and Technology area of NCEMMH are referred to by their "product number," an accession number based on the order in which they were submitted to NCEMMH from outside agencies. The list does not include these product numbers, that were essentially for internal monitoring purposes.

Addendum: NIMIS Data Preparation Manual, revised edition, January 1976 (sold with NIMIS Data Preparation Manual, where ERIC number is also listed) (Ohio State University Press) NC-76.401-A

ALRC Accountability Data: Spring Quarter Report, FY 1975 Summary Covering Q1, Q2; September, 1974--February, 1975, William S. Donaldson, NC-75.703

ALRC Accountability Data: FY 1975 Summary Covering Q1, Q2, Q3; September 1974--May 1975, William S. Donaldson and Karen F. Scheid, NC-75.706.

ALRC Accountability Data: FY Summary Covering Q1, Q2, Q3, Q4; September 1974--August 1975, William S. Donaldson and Karen F. Scheid, NC-75.708

ALRC Accountability Data (AAD-76/1): FY 1976 Summary Covering Q1 September 1975--November 1975, William S. Donaldson and Karen F. Scheid, NC-76.704

ALRC Accountability Data (AAD-76/2): FY Summary Covering Q1 and Q2 September 1975--February 1976, William S. Donaldson and Karen F. Scheid, NC-76.708

ALRC Accountability Data (AAD-76/3): FY 1976 Summary Covering Q1, Q2, Q3, September 1975--May 1976, William S. Donaldson and Karen F. Scheid, NC-76.712

ALRC Accountability Data (AAD-76/4): FY 1976 Summary Covering Q1, Q2, Q3, Q4, September 1975--August 1976, William S. Donaldson and Karen F. Scheid, NC-77.701

ALRC Accountability Data (AAD-77/1): FY 1977 Summary Covering Q1, September 1976--November 1976, William S. Donaldson and Karen F. Scheid, NC-77.707

ALRC Accountability Data (AAD-77/2): FY 1977 Summary Covering Q1, Q2, September 1976--February 1977, William S. Donaldson and Karen F. Scheid, NC-77.708

ALRC Network Consultant Registry Study: March 1, 1975, Coordination Services

ALRC Workscope Elaboration and Proposal Guidelines, April 4, 1975, Coordination Services

ALRC Workscope Elaboration, May 1, 1975, second edition, Coordination Services, NC-75.501

ALRC/SO/NCEMMH Committee Progress Reports: March 1, 1976-August 31, 1976, Coordination Services, NC-76.710

ALRC/SO/NCEMMH Committee Progress Reports: September 1, 1976-August 31, 1977, Coordination Services, NC-77.711 (NC-76.711 appears in the publication in error)

ALRC/SO/NCEMMH Network Committee Progress Reports: January 10, 1975-June 30, 1975, Coordination Services, NC-75.704

ALRC/SO/NCEMMH National Training Activities, 1976-1977, Coordination Services (distributed July, 1976)

America's Journey into Space, NAC Title No. 007300 (National Audiovisual Center)

America's Journey to the Moon, NAC Title No. 007296 (National Audiovisual Center)

Apropos

Spring, 1974 (Vol. 1, No. 1, but not stated in newsletter)
Summer, 1974 (Vol. 1, No. 2, " " " " ")
Sept., 1975 (Vol. 2, No. 1, " " " " ") NC-75.601
Jan., 1976 (Vol. 3, No. 1, " " " " ") NC-76.601
Spring-
Summer, 1976 (Vol. 3, No. 2, " " " " ") NC-76.602
Autumn, 1976 (Vol. 3, No. 3) NC-76.603
Winter, 1977 (Vol. 4, No. 1) NC-77.601
Autumn, 1977 (Vol. 4, No. 2) NC-77.603

Auditory Communication Activities for Introduction to Art (MSSD)

Auditory Communication Activities for Introduction to Drawing (MSSD)

Auditory Learning Materials for Special Education Catalog (ERIC Document Reproduction Service, ED 102-757)

Background Report on Needs Assessment: Special Education (erroneous title as cited in 1974 Apropos) see NCEMMH Report on Needs in Special Education

Behavioral Objectives in the Classroom: Fact or Fantasy, by William J. A. Marshall (ERIC Document Reproduction Service, ED 101 525)

BEH/LRCP Directory of Personnel, January, 1976, published jointly by CORRC and NCEMMH, NC-76.302 (the wrong number mistakenly appeared in the publication itself: NC-76.301)

Cerebral Palsy and Related Developmental Disabilities--Prevention and Early Care: An Annotated Bibliography, compiled by Raymond R. Rembolt and Beth Roth, Vol. 1, Vol. 2, and Vol. 3 sold as a set; Vol. 4; Vol. 5 (Ohio State University Press)
ERIC Numbers: Vol. 1 - ED 111 160; Vol. 2 - ED 111 161; Vol. 3 - ED 111 162; Vol. 4-submitted to ERIC; number not assigned as of 10/31/77
Vol. 5-" " " " " " " "

Characteristics of Educational Technology That Facilitate the Education of Handicapped Learners (erroneous title) see The Role of Educational Technology in the Education of Handicapped Learners

Consumer Education: Secondary Level, Mildly Handicapped (NIMIS bibliography) NC-77.103

Coping with Menstruation, NAC Title No. 007714 (National Audiovisual Center)

A Day in the Life of Maria Baca, NAC Title No. 010259 (National Audiovisual Center)

Definition of Common Terms Used in Regional Resource Center and Area Learning Resource Accountability Reporting, December 15, 1975. Published jointly by CORRC and NCEMMH

Developers' Guide: Preparing Products for Distribution through the National Center on Educational Media and Materials for the Handicapped NC-76.504 (Ohio State University Press) (Also, ERIC Document Reproduction Service, ED 127-732)

Developers' Guide audiovisual slide show, NC-76.504AV

Developing Instructional Materials for the Handicapped: Guidelines for Preparing Materials Suitable for Wide Distribution, by John C. Belland and Sidney Rothenberg, September, 1973; out of print; succeeded by Developers' Guide (ERIC Document Reproduction Service, ED 085 931)

Developmental Approach to Casefinding (not published by NCEMMH, but distributed with Infant Appraisal, as explained in NCEMMH catalog)

Dialogue, a three-part series made up of the individual titles Finders Keepers, Milk Money, and What Should Kathy Do?, NAC Title No. 008509 (National Audiovisual Center)

Directory of Learning Resource Centers, February, 1976, Information Services, NC-76.301 (This number also erroneously appears in BEH/LRCP Directory of Personnel ... January, 1976) (see also second edition listed under Learning Resource Center Directory)

Directory of Personnel in the ALRC/SO/NCEMMH Network: April, 1975, compiled by Coordination Services

"Document Interfacing P.L. 94-142 with ALRC/Intrastate Activity" (Draft), December, 1976, by Karen Scheid and William S. Donaldson. (Appears in ALRC/SO/NCEMMH Committee Progress Reports, September 1, 1976-August 31, 1977, NC-77.711 erroneously appearing as NC-76.711 in document)

Early Childhood: Activity Books and Resource Guides (NIMIS bibliography) NC-77.112

Early Childhood: Psychomotor Skills (NIMIS bibliography) NC-77.114

Early Infant Appraisal (erroneous title) See Infant Appraisal

Eating with a Spoon: How to Teach Your Multihandicapped Child (Ohio State University Press) NC-75.906 (This title was also printed by the Government Printing Office.) (Also, ERIC Document Reproduction Service, ED 115 058)

Fall Quarterly Report: September-October-November, 1974 NC-74.701

Fall Quarterly Report: September, 1975-November, 1975 NC-76.701

Fall Quarterly Report: September, 1976-November, 1976 NC 77.703

Film Catalog (see National Catalog of Films ...)

Final Technical Report: Writing Guidelines for Preparation of ALRC /SO Final Reports to BEH/LRB Covering the Period September 1974-May 1977, Coordination Services NC-77.501

Finders Keepers, NAC Title No. 007299 (National Audiovisual Center)

FY 1976 ALRC Accountability Reporting (Clarification Document) July 29, 1975, William S. Donaldson

FY 1976 ALRC/SO/NCEMMH Committee Rationale, Objectives, and Procedures, Coordination Services NC-75.405

Growing Up: A Guide to Nonprint Resources for the Hearing Impaired (Awarded to the following commercial publisher by means of RFP Procedures: Instructional Dynamics, Inc., 450 E. Ohio, Chicago, Illinois 60611)

Guidelines for the Representation of Exceptional Persons in Educational Material (distribution by M. Angele Thomas, Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22091) prepared for initial distribution at 1977 CEC Convention, April, 1977

Guide to Developmental Milestones (not published by NCEMMH, but distributed inside Developmental Approach to Casefinding; see Infant Appraisal)

Hearing Impaired Formal Inservice Program (frequently used former title) See HI-FI

How the States Match Up with the Area Learning Resource Centers, by Region NC-75.403 (and several revisions, not numbered)

How to Read NIMIS Records, NC-76.404 (flier), NC-76.404-A (folder) and revision, same number

How to Use NIMIS: The Key to Information about Instructional Materials for the Handicapped NC-76.402 (same number on reprintings)

I Like the Overhead Projector Because ..., NAC Title No. 010260 (National Audiovisual Center)

Indirect Cost Data Displays, William S. Donaldson and Karen F. Scheid, May, 1977

Infant Appraisal, NAC Title No. 007844 (National Audiovisual Center)

Information Brochure for the Publishers Compact, NC-76.403

In Search of Educational Materials for the Handicapped: Rx NIMIS (slide show), NC-77.401

Instructional Materials Thesaurus for Special Education, third edition, 1976 (Ohio State University Press) (Also, ERIC Document Reproduction Service, ED 132 759) NC-76.505

Instructional Media and Materials Designed for Early Childhood and Readiness Levels (first prototype NIMIS bibliography)

Instructional Technology and the Education of All Handicapped Children NC-77.801 (accepted for republication by Educational Technology Publications, Inc., 140 Sylvan Avenue, Englewood Cliffs, New Jersey 07632)

Introduction to Art (MDDS)

Introduction to Drawing (MSSD)

Introduction to Painting (MSSD)

The Kentucky Time Program (frequently used former title) see Telling Time

Kiddy Key (awarded to a commercial publisher by means of RFP procedures: Communication Skills Builders, Inc., 817 E. Broadway, P.O. Box 6081, Tucson, Arizona 85733)

Language Arts Transparencies for Teaching Hearing Impaired Children, NAC Title No. 009948 (National Audiovisual Center)

Learning Disabled: Number Concepts, Primary Grades (NIMIS bibliography) NC-77.110

Learning Resource Center Directory, second edition, 1977, Coordination Services, NC-77.303

Learning Resource Centers Program Regional Prevalence Estimates, Karen F. Scheid and Williams S. Donaldson, November, 1976

Milk Money, NAC Title No. 007297 (National Audiovisual Center)

Mister Rogers' Neighborhood and the Handicapped Child Interface: Exploring and Assessing Integration of Educational Media and Professional Services to the Handicapped Child by Robert R. Monaghan and others (a report; publishers listed as OSU Research Foundation) (ERIC Document Reproduction Service, ED 108 424)

Motion, NAC Title No. 008361 (National Audiovisual Center)

Movement Exploration and Locomotor Skills (NIMIS bibliography) NC-77.115

Mudpies and Media (awarded to a commercial publisher by RFP procedures: Opportunities for Learning, Inc., 5024 Lankershim Blvd., North Hollywood, California 91601)

Name Writing (awarded to a commercial publisher by means of RFP procedures: Hubbard, Box 104, Northbrook, Illinois 60062)

National Catalog of Films in Special Education: An Annotated List of More Than 700 Films for Teachers, Paraprofessionals, and Parents, on Various Aspects of Special Education (Ohio State University Press) NC-77.201 (Also, ERIC Document Reproduction Service)

National Center on Educational Media and Materials for the Handicapped: NCEMMH (general brochure) NC-75.404 (several printings with same number)

National Instructional Materials Information System (NIMIS): Procedures for Data Preparation for the NIMIS Report Form, first draft, December, 1974 NC-74.401

National Instructional Materials Information System (NIMIS) Description: Planning Report, January, 1975 NC-75.701

NCEMMH Catalog: Audiovisual Materials and Publications in Special Education, Summer, 1976 (out of print) NC-76.201

NCEMMH Catalog: Media, Materials, and Publications, Autumn, 1975 (out of print) NC-75.201

NCEMMH Report on Needs in Special Education (ERIC Document Reproduction Service, ED 101 523)

Needs for Instructional Media and Materials Services for Handicapped Learners: A Summary of Extant Information, Robert R. Lange, Charyl T. Mattson, and James B. Thomann (ERIC Document Reproduction Service, ED 117 911)

NIMIS Data Preparation Manual: April, 1975, compiled by Mary Joncich and Richard Starn, edited by Carl F. Oldsen (Ohio State University Press) NC-76.401

NIMIS Data Preparation Manual, revised edition, January, 1976, by Mary Joncich, edited by Carl F. Oldsen (Ohio State University Press) (Also, ERIC Document Reproduction Service, ED 125 227) NC-76.401 (sold with Addendum)

NIMIS: Status and Prospectus, January, 1976-August, 1976, NC-76.706

NIMIS Update News, February, 1977 (Issue 1), March 14, 1977 (Issue 2), May, 1977 (Vol. 1, Issue 3), July, 1977 (Vol. 1, Issue 4)

NIMIS User's Manual: 1976 NC-76.406

1977 Catalog: NCEMMH Special Education Materials and Supplement to the 1977 Catalog of NCEMMH Special Education Materials, NC-76.203 (Supplement not numbered)

The Parental Skills Program for Parents of Handicapped Children (awarded to a commercial publisher by means of RFP procedures: Webster/McGraw-Hill Division, McGraw-Hill Book Company, 1221 Avenue of the Americas, New York, New York 10020)

Parent-Child Communication: A Mediated Program Designed to Facilitate Communication between Parents and Their Deaf Children, NAC Title No. 009332 (National Audiovisual Center)

Patchwork, NAC Title No. 009949 (National Audiovisual Center)

Personnel: Learning Resource Centers Program, Bureau of Education for the Handicapped, published jointly by CORRC and NCEMMH, Spring, 1977, NC-77.302

Photography Is a Way to Learn, NAC Title No. 010261 (National Audiovisual Center)

Physically Handicapped: Adaptive Devices (NIMIS Bibliography) NC-77.111

Proposal Writing Guidelines for Preparation of FY 1977 ALRC/SO Continuation Requests to LRCP/BEH, Coordination Services, NC-76.502

Publisher Source Directory, July, 1975, Compiled by the staff of the New York State Education Department Area Learning Resource Center, Albany (out of print) NC-75.302

Publisher Source Directory, revised edition, compiled by the staff of the New York State Education Department Area Learning Resource Center, Albany (out of print) (Also, ERIC Document Reproduction Service, ED 119 399) NC-75.303

Publisher Source Directory, third edition, revised by staff at the National Center (Ohio State University Press) (Also, ERIC Document Reproduction Service) NC-77.301

Reading: Secondary Level, Mildly Handicapped (NIMIS bibliography) NC-77.105

Real-Life Math (awarded to a commercial publisher by means of RFP procedures: Hubbard, Box 104, Northbrook, Illinois 60062)

Rehabilitation Aids (NIMIS bibliography) NC-77.113

Report on Product Specific Surveys, William S. Donaldson, August 27, 1976

Report on the NCEMMH Media Selection Conference Held September 13 and 14, 1973 (ERIC Document Reproduction Service, ED 085 936)

Report to Congress: National Center on Educational Media and Materials for the Handicapped at The Ohio State University, 1977 NC-77.704

Reversals (NIMIS bibliography) NC-77.107

The Role of Educational Technology in the Education of Handicapped Learners (ERIC Document Reproduction Service, ED 098 954--wrongly listed in NCEMMH catalog as ED 098 054)

Severely/Profoundly Mentally Handicapped (NIMIS bibliography) NC-77.104

Site Visit Report, Special Office for Materials Distribution (SOMD), August 18-20, 1976, William S. Donaldson, November, 1976

SO Accountability Data (AOAD-76/1): FY 1976 Summary Covering Q1, September 1975-November 1975, William S. Donaldson and Karen F. Scheid, NC-76.705

SO Accountability Data (AOAD-76/2): FY 1976 Summary Covering Q1 and Q2, September 1975-February 1976, William S. Donaldson and Karen F. Scheid NC-76.707

SO Accountability Data (SOAD-76/3): FY 1976 Summary Covering Q1, Q2, and Q3, September 1975-May 1976, William S. Donaldson and Karen F. Scheid NC-76.712

SO Accountability Data (SOAD-76/4): FY 1976 Summary Covering Q21, Q2, Q3, and Q4, September 1975-August 1976, William S. Donaldson and Karen F. Scheid, NC-77.702

SO Accountability Data (SOAD-77/1): FY 1977 Summary Covering Q1, September 1976-November 1976, William S. Donaldson and Karen F. Scheid, NC-77.705

SO Accountability Data (SOAD-77/2): FY 1977 Summary Covering Q1 and Q2, September 1976-February 1977, William S. Donaldson and Karen F. Scheid, NC-77.709

SO Accountability Data (SOAD-77/3): FY 1977 Summary Covering Q1, Q2, and Q3, September 1976-May 1977, William S. Donaldson and Karen F. Scheid, NC-77.712

SO Workscope Elaboration for Use in Preparation of FY 1977 SO Continuation Requests to LRCP/BEH, Coordination Services, NC-76,503

Special Education Market Report: Preliminary, compiled by Carol B. Daniels, NC-77.802 (Submitted to ERIC 9/77)

Speech Improvement for the Trainable Retarded: A Manual for the Classroom Teacher and Speech Improvement Activity Book (Ohio State University Press) NC-75.901 and NC-75.902 (this title was also printed and sold by the Government Printing Office, Superintendent of Documents, Washington, D.C., GPO Title No. 017-080-1543-9) (Also, ERIC Document Reproduction Service, ED 112 535)

Spring Quarterly Report: March 1975-June 1975, NC-75.705

Spring Quarterly Report: Seppember 1975-May 1976, NC-76.709

Spring Quarterly Report: September 1976-May 1977, NC-77.710

Standard Criteria for the Selection and Evaluation of Instructional Material: Teacher Level and National Level, NC-76.405-A (Teacher Level), NC-76.405-B (National Level) (ERIC Document Reproduction Service, ED 132 760)

Summer Quarterly Report: June 1975-August 1975, NC-75.707

Summer Quarterly Report: September 1975-August 1976, NC-76.713

Summer Quarterly Report: September 1976-August 1977, NC-77.713

Supplement to the 1977 Catalog of NCEMMH Special Education, effective June, 1977, see 1977 Catalog ...

Teaching Sight Words Using the Kinesthetic Method, NAC Title No. 007717 (National Audiovisual Center)

Telling Time (awarded to a commercial publisher by means of RFP procedures: Hubbard, Box 104, Northbrook, Illinois 60062)

Testimony for the Senate Subcommittee on the Handicapped, March 21, 1973, John C. Belland (ERIC Document Reproduction Service, ED 101 524

TIP No. 5 (Original title of Workshop ...)

To Buy or Not to Buy, NAC Title No. 010 262 (National Audiovisual Center)

Toilet Training: How to Teach Your Developmentally Disabled Children, (award to a commercial publisher by means of RFP procedures: Webster/McGraw-Hill Division, McGraw-Hill Book Company, 1221 Avenue of the Americans, New York, New York 10020)

The Tools, Materials and Techniques of Acrylic Painting (MSSD)

The Tools, Materials and Techniques of Watercolor Painting (MSSD)

Trainable Mentally Handicapped: Daily Living and Self-Care Skills (NIMIS bibliography) NC-77.108)

Trainable Mentally Handicapped: Protective Vocabulary (NIMIS bibliography) NC-77.106

Turn Off the Sound (Ohio State University Press) NC-77.901

Up the Dressing Ladder: Steps to Independence, NAC Title No. 007 295 (National Audiovisual Center)

What Happens When You Steal, NAC Title No. 007 716 (National Audiovisual Center)

What Should Kathy Do?, NAC Title No. 007 298 (National Audiovisual Center)

Winter Quarterly Report: December 1974-February 1975, NC-75.702

Winter Quarterly Report: September 1975-February 1976, NC-76.703

Winter Quarterly Report: September 1976-February 1977, NC-77.706

The Working World (Ohio State University Press) NC-77.907

Workshop: Creating Instructional Materials for Handicapped Learners, NAC Title No. 009 688 (National Audiovisual Center)

APPENDIX 2

NATIONAL ADVISORY BOARD

The National Advisory Board provided informed advice to the National Center on priorities, objectives, and activities so that the Center was responsive to its legislated mandate to have a turly national program and clientele. In addition to attending semi-annual meetings at the National Center, individual members frequently assisted NCEMMH staff through vists, in correspondence, by telephone, at professional meetings, and in similar situations. The distinguished educators and laymen on the board gave broad representation of groups concerned with handicapping conditions, such as state departments of education, other instructional centers for the handicapped, commercial producers of instructional materials, educators of teachers, teachers of handicapped learners, parent organizations, and information scientists.

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Northwest Area Learning Resource Center
University of Oregon
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APPENDIX 3

Pre-College Programs
Gallaudet College

Kendall Demonstration Elementary School
Model Secondary School for the Deaf

Kendall Green · Washington, D.C. 20002

September 30, 1977

MEMORANDUM

TO: Dr. Hicks, Dr. Ashcroft, Dr. Marshall, Dr. Davila, Dr. Stepp, Dr. Watson, Dr. Nomeland, Dr. Min

FROM: Frank S. Rubin

SUBJECT: Final Report of the NCEMMH/MSSD-KDES/SO-2 Liaison Office

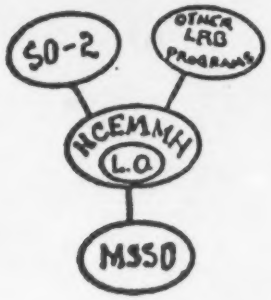
INTRODUCTION:

The purpose of this final report is to report the level of service provided to the Model Secondary School for the Deaf (MSSD) and the Kendall Demonstration Elementary School (KDES) over the past two years through the NCEMMH/MSSD-KDES/SO-2 Liaison Office. This report is a reflection of the scope and character of the type of resources and services provided to the MSSD and the KDES.

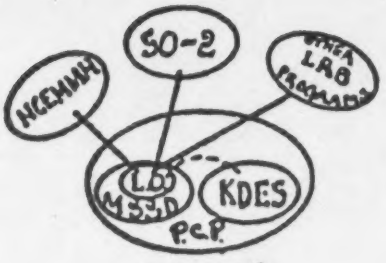
BACKGROUND:

Prior to 1974-75 the National Center on Educational Media and Materials for the Handicapped (NCEMMH) maintained a Liaison Office on the Gallaudet College campus staffed by NCEMMH employees. During the NCEMMH Fiscal Year 1974-75, discussions among NCEMMH, MSSD, and Specialized Office 2 (SO-2) personnel led to an altering of the view of the Liaison Office role and function. An MSSD staff member was detailed to define all areas of potential service in which NCEMMH or SO-2 had an operational capacity and to establish a mutually agreeable procedure for negotiating, monitoring, and evaluating the delivery of those services.

It was felt that the effective delivery of services to MSSD would be markedly facilitated by a stronger internalization of initiative within the MSSD. As a means of accomplishing this purpose, NCEMMH recommended the operation of the Liaison Office function on a subcontract basis. A further consideration in this recommendation was an assumption that this internalization, within MSSD, of the Liaison function would tend to clarify questions of the relationship of the Liaison Office to service delivery by Learning Resource Branch projects other than the NCEMMH. The reconceptualized role of the Liaison Office is illustrated below:



Pre 1974-75



Post 1975

A Liaison Office that reflected these concerns was established by the Pre-College Programs of Gallaudet College. Its purpose was to provide an administrative interface with the BEH supported ALRC/SO/NCEMMH network and with other related programs which had a high potential for assisting the Pre-College College Programs (MSSD/KDES) in their educational technology needs.

The mission of the Liaison Office for the past two years was directed towards: (a) the identification and definition of educational technology related needs of the MSSD and the KDES which could be met partially or totally through services appropriately provided by ALRC/SO/NCEMMH and related program components; (b) the exploration of the capabilities of those network components to respond to the identified needs; (c) the negotiation, on the behalf of and in cooperation with, appropriate MSSD/KDES personnel, and with network units to specify the work to be accomplished and the division of labor, and where necessary to supplement the efforts of the service agency and/or the MSSD/KDES recipient unit in accomplishing the work; (e) coordinating and monitoring the process of service delivery within and across specific service agreements; and (f) reporting to both the service agency and appropriate MSSD and KDES personnel on progress within, and adequacy of, the service activity.

FTE ALLOCATION TO LIAISON OFFICE ACTIVITIES:

Personnel were allocated to achieve the above mentioned goals. This staff consisted of:

	1975-76	1976-77
A Director	.50 FTE	.80 FTE
A Professional Level Staff Member	.80 FTE	--
An Administrative Secretary	1.00 FTE	1.00 FTE

Not reflected above is the level of support supplied by NCEMMH, SO-2 and MSSD/KDES in the fulfillment of service agreement activities.

Financial support for Liaison Office activities was provided by both the MSSD and the NCEMMH on an approximately equal basis.

SERVICES AND RESOURCES PROVIDED TO MSSD/KDES:

From the beginning of Fiscal Year 1975-76 until the end of Fiscal Year 1976-77, a wide range of services and resources have been provided to the MSSD and the KDES by the NCEMMH, the SO-2, other Learning Resource Branch programs, other outside agencies, or through the direct efforts of personnel assigned to the Liaison function. A listing of the types of services and resources coordinated through or provided by the Liaison function is provided below. Not reflected in this listing are the efforts expended to administer the Liaison Office, the level of communication among agencies fostered by this arrangement, the numerous spontaneous instances of assistance that were limited in scope and never formally recorded, and the maintenance of formal and informal reporting systems that promoted common understanding and information sharing among agencies.

Types of Services and Resources Provided

.Conducted a product inventory of instructional materials used within the MSSD and KDES in the education of hearing impaired students.

.Assisted in the formulating of criteria to be used in assessing the readiness of instructional materials for external pilot test evaluation procedures.

.Obtained permissions to use copyrighted materials from commercial and non-commercial organizations.

.Provided personnel and resources to design and implement five different surveys. Two of these surveys were conducted nationwide: the first concerned itself with curriculum priorities of programs for the hearing impaired and their instructional materials acquisition practices; the second concerned itself with student curriculum information and 119 different curriculum areas were surveyed for 17 different age groups. Two surveys were conducted that related specifically to instructional products under (or anticipated for) development by MSSD. The purpose of these surveys was to ascertain the need for the materials in question and the desired characteristics they should possess. The last survey, which is currently being implemented, is designed to determine the types and quantity of available media equipment found in programs for the hearing impaired in the United States.

.Implemented competitive product searches, pilot tested and conducted product review panels for MSSD/KDES instructional materials.

.Provided NIMIS equipment, software and training for MSSD/KDES personnel.

.Provided resources and personnel to arrange for the publication of MSSD produced instructional materials via an agreement with Ohio State University Press.

.Provided resources and personnel to arrange for the printing of MSSD materials.

.Arranged for the reproduction of film loops for MSSD/KDES.

.Provided assistance in the development of a plan for the reproduction of MSSD instructional materials.

.Secured the services of packaging consultants for the MSSD Line and Texture program.

.Provided technical advice for the revision of MSSD/KDES instructional materials.

.Handled administrative work associated with the billing of consumers wanting MSSD course guides.

.Conducted numerous NIMIS searches for MSSD prior to installation of that system within MSSD/KDES.

.Developed procedures for KDES to determine what products would be externally tested and possibly disseminated.

.Provided assistance in arranging for the field testing of MSSD produced instructional materials.

.Provided technical assistance in arranging for the reproduction of MSSD/KDES instructional materials.

.Assistance in the preparation of contracts and agreements for MSSD/KDES.

.Provided technical advice for the dissemination system developed by MSSD.

.Provided resources and personnel to assist MSSD/KDES in the development of instructional materials.

.Formulated procedures for the KDES video-tape exchange program.

.Advised MSSD/KDES of various BEH programs and procedures.

.Assisted in the location of resources needed by MSSD/KDES.

.Provided information on the curriculum of hearing impaired students.

ASSESSMENT OF SERVICES PROVIDED:

While no formal evaluation regarding MSSD/KDES's level of satisfaction with the type and scope of resources and services provided through the Liaison function has been made, informal indications appear to be positive. The administrative leaders of MSSD/KDES have expressed their satisfaction with this type of arrangement and level of service and have expressed their hope that similar service will continue in the future.

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Virginia Williams	Receptionist	1.0
Ann Mahoney	Graduate Research Associate	.5
vacant	Student Assistant	.5
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Lori Croop	Student Assistant	.5
Carol Daniels	Marketing Assistant	.5
William Davis	Student Assistant	.5
Drew Denton	Graduate Research Associate	.5
Joyce Ellis	Educational Specialist	1.0
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Peg Reichman	Secretary	1.0
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Mary Bucher	Editor	1.0
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Connie Wisler	Data Entry Clerk	1.0
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Part-time	Data Entry	3.5
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